

This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

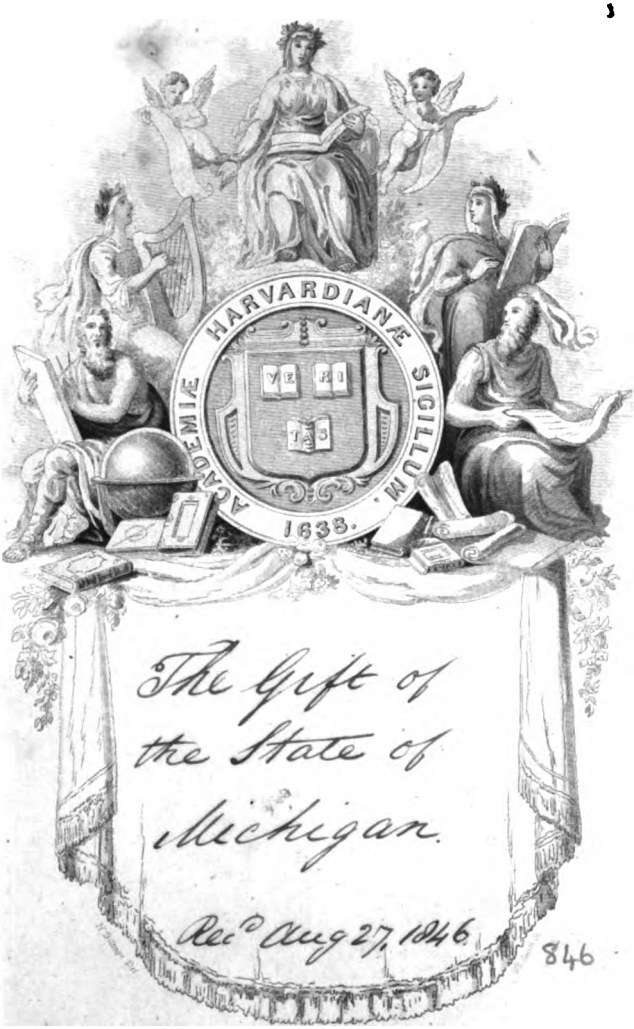
+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

US27018.1.15



The Gift of
the State of
Michigan.
Rec'd Aug 27, 1846.
846

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

DOCUMENTS

ACCOMPANYING THE

JOURNAL OF THE SENATE,

OF THE

STATE OF MICHIGAN, — Legis.

AT THE

ANNUAL SESSION OF 1841.

VOLUME I.



DETROIT:
GEORGE DAWSON, STATE PRINTER.

1841.

Digitized by Google

US 27018.1.15
~~Mich. Doc. 2.10~~

HARVARD COLLEGE LIBRARY

Digitized by Google



THE UNITED STATES OF AMERICA.

THE STATE OF

MICHIGAN

TO

Bugg & Harmon, Printers, Detroit.

Digitized by Google

US 27018.1.15



Digitized by Google

SENATE DOCUMENTS.

Digitized by Google

Digitized by Google

JOINT DOCUMENTS.

Digitized by Google

Digitized by Google

CONTENTS.

No.		Page.
1.	Annual message of the governor,	9
2.	Annual report of the auditor general,	91
3.	Annual report of the state treasurer,	149
4.	Annual report of the board of internal improvement,	154
5.	Special message concerning state salt springs,	235
6.	Annual report of the attorney general,	254
7.	Report of the board of regents of the university,	265
8.	Special message concerning the five million loan,	266
9.	Report of the superintendent of public instruction,	312
10.	Special message, with documents, relative to the public domain,	467
11.	Annual report of the state geologist,	472
12.	Report of the commissioners appointed by the act to provide for a settlement with the Ypsilanti and Tecumseh railroad company,	607
13.	Report of the secretary of state, in relation to the poor, in the several counties, for 1840,	609

Digitized by Google

Digitized by Google

JOINT DOCUMENTS.

[No. 1.]

Annual message of the governor.

Fellow citizens of the Senate and House of Representatives:

The period has again arrived, when, by our organic law, the representatives of the people of Michigan are required to assemble. The great design of this constitutional requisition is, that after examining into the condition of public affairs, we may, in all things practicable, ameliorate their condition; that we may correct the errors, and supply the deficiencies of former legislation; that we may increase the extension of useful knowledge, and elevate the public morals; that we may advance the principles of justice, foster the great interests of the state, sustain the public faith, and promote the public prosperity. And happy will be our lot, if, when again we separate, we may be permitted to return to our constituents, with a consciousness, that in any material degree we shall have been the instruments, in the hands of an overruling Providence, in giving effect to purposes of so hallowed a character.

In furtherance of this general design of the constitution, it is made mandatory upon the governor, that he "communicate to you the condition of the state," and "recommend to you such matters as he shall deem expedient." Who would enter upon the execution of *such* a duty, except with feelings subdued by a consciousness of his own inability to perform it in a manner the most conducive to the public good? But it is our duty and our happiness to remember that our destinies are in the hand of a benevolent and an Almighty Power, who shapes our ends according to his will, and without whose favor, we can realize nothing good—for feeble and short sighted is the wisdom of man!

In any attempt to review "the condition of the state," the attention of the observer is first, very properly, directed to the consideration of the moral and intellectual character, actual and prospective, of its people. Civil commotions and wars

Digitized by Google

have an end; the evils of misgovernment are temporary in their nature, and may be corrected; the chastisement of heaven, even, through the merciful Providence of God, are, in this world, ordinarily, of short duration. But who can measure the extent, or see the end, or estimate the intensity, of the evils which flow to a people, from ignorance and vice? If any political axiom to be better established than another, it is this, that no republic can long exist, unless intelligence and virtue predominate among, and characterize the great body of its people. Gathered principally from the older states of this happy Union, our fellow citizens have, for the most part, participated, more or less, in the benefits of their excellent and long established institutions—their common schools, and all their highly improved literary and religious establishments. We may, therefore, justly claim for them the present possession, in equal degree with our fellow citizens of the older and more favored states; of those high and ennobling attributes of human nature, intelligence and virtue. But in so far as we may justly claim this high distinction, in the same proportion are the motives stronger and the obligation more imperative, to secure to those who shall come after us—to our own children—at least, an equally elevated rank in the scale of intellectual being. But, have we been sufficiently mindful of this great duty? Not experiencing in our own person, perhaps, or but in a slight degree, the immeasurable evils likely to result from a deprivation, in early life, of the benefits of such institutions, have we not accustomed ourselves to think but seldom, and then with too much indifference upon the vital importance of the establishment, multiplication and perfection of similar systems, in our own beautiful, but recently reclaimed, peninsula? The character of our state, the happiness and the destinies of our people, are fast passing into the custody of those who shall come after us; and shall it in future times be said of them, that through the improvidence of their fathers, it was their unspeakable misfortune, to be deprived of those advantages of early mental, moral and religious education, that we ourselves have possessed?

The importance of the early and methodical development and culture of the intellectual faculties of man; the influences which habits formed, and knowledge attained in early life, (through a general and judicious system of education,) cannot fail to exert, not only upon individual happiness, but upon the political institutions of our country; have been too frequently the topics of discussion among the learned, the wise and the eloquent of the land, to render it necessary or proper for me to delay you by further comments upon the subject. I recommend a careful review of all existing statutory enactments, relative to the system of education heretofore adopted in the

Digitized by Google

state, and especially relative to that part of it, which concerns the broad basis of the whole—the common schools.

I know of no section of the Union, in which the subject of education, (comprehending a system of common schools,) has engaged more the attention of the public authorities, or for a longer time, or more successfully, than in Connecticut. And appreciating very highly the benefits to be derived from long-tried experience, I respectfully lay before you some well reasoned reports made to the legislature of that state, exhibiting the present condition and the leading features of their system. I am not in favor of a literal and too servile adoption of the legislation of other states; our system should, in general, be *our own*, and be made to accord with whatsoever may be peculiar in our circumstances, or in the condition of society among us. But considering the success which has attended the efforts of our fellow citizens of that state, in the great cause of education, I have supposed that an attentive examination of their greatly perfected plans, might suggest important improvements in our own. That *our* system is susceptible of amelioration in many particulars, I have little doubt; while at the same time, it is proper to remark, that in this, as in all other matters of legislation, no innovation should be made, but with great caution, and the more especially, because its establishment has been so recent, that its merits can scarcely yet have, in all things, been fully tested. For reasons, however, which heretofore I have had the honor to communicate to your immediate predecessors, and which I propose again to advert to, I do not hesitate to recommend, that a more equal and just mode of taxation for the sustainment of common schools, be substituted in lieu of the existing provisions of the law in that respect. And also, that the fiscal arrangements and pecuniary affairs of the system be either separated entirely from the other more intellectual functions of the superintendent of public instruction, or else, that by some other appropriate modification of the law, the existing powers and duties of the superintendent, relative to pecuniary affairs, may be made more entirely subject to the direct control of the head of the financial department.

The revenues necessary for the erection of school houses, and the sustainment of the system generally, are derivable, first and principally, from a course of taxation provided for by existing laws. The entire plan upon which this course of taxation is founded, seems to me obnoxious to the most serious objections. The legislation of last year, though beneficial, in no wise removed the evil.

Every system of taxation, to be just, should be reasonable, equal and uniform. It is a proposition as notorious as it is lamentable, that the assessments of taxes for school purposes as

Digitized by Google

well as for highways, are neither uniform nor equal, and in some instances have been most highly unreasonable. The legislature has prescribed no uniform standard by which assessments are made; the same species of property, and of the same estimated value, may be taxed a hundred fold more in one district than in another bordering upon it; and every little neighborhood may be erected into a separate school or road district, with power to tax almost at pleasure. But the power of taxation is one of the highest attributes of sovereignty. It should never be exercised but with much caution—the most mature consideration, and the most scrupulous regard to justice, uniformity and equality. If otherwise exercised, it becomes unjust and oppressive. No tax, I am persuaded, would be paid by the people of Michigan, with more cheerfulness, if it be just, equal and uniform, than a tax for the hallowed purposes of education. But it deeply concerns the honor and good faith of the state, that the practical injustice of our present system should be avoided, and the evils I have alluded to, promptly corrected.

The remaining source of revenue, applicable to the support of our common schools, consists in the annual interest accruing upon the purchase money, for which sales of school lands may have been, or may be effected; and the rest reserved for the use and occupation of such as may be leased.

This resource, upon which so much expectation was founded, seems too likely, for present purposes, in a great measure, to fail us. The overthrow of the general currency of the nation, which has produced so much distress, and the continuing process by which, what little remains available, seems rapidly passing out of the state, have already prostrated all uniform standard of value; and the ruinous diminution in the prices of agricultural products, have rendered all real estate of little present worth. School lands, therefore, are no longer sought after by purchasers; and, hitherto, in times of so great pressure and general distress, the legislature have found it difficult to resist applications for relief, and delay of payment on the part of those who have heretofore purchased these lands.

From this source, therefore, little, comparatively, has been realized, and the sanguine hopes of the friends of education have been thus far disappointed. The same general cause, very materially affects also the present condition, and, for a time, the future capacities of the university. What great interest of the country, indeed, has not felt its blighting influences? Aided most materially by the loan which it was heretofore authorized by the state to negotiate, the principal buildings necessary for its accommodation, have been steadily progressing, and with a solidity of workmanship and material, and an architectural taste, worthy of its high destination, and of the state.

Digitized by Google

The four buildings for the professors, commenced last year, are finished; the university grounds are handsomely inclosed; commodious apartments for sixty-four students will have been finished in June next, and a valuable library, consisting of three thousand, seven hundred and seven volumes, have been received. There are seven branches of the university in operation, viz: at Detroit, Pontiac, Monroe, Tecumseh, White Pigeon, Niles and Kalamazoo. Thirteen teachers are in employ, and the number of pupils is two hundred and forty-seven. The disbursements of the university have been great; and I fear that the original calculations of the board of regents, under whose direction and control the work has proceeded, were founded upon presumed resources, which the universal depreciation of property, may prove to have been in some degree fallacious. The last legislature, by resolution, required of the board that they should cause a report to be made to you during your present session; the pecuniary affairs of the institution will then probably be fully exhibited to you. The reputation of the state certainly, if not the public faith, requires the most strict and punctual performance of all its pecuniary responsibilities. I would recommend that by a special committee, to that end appointed, a critical investigation be made of its financial concerns, with a view to such ulterior legislation as the exigency may require.

The commissioners appointed according to the provisions of the "Act to provide for the sale of certain lands to the settlers thereon, and for other purposes," have performed the laborious and very highly responsible duties devolved upon them, in a manner creditable, I think, to themselves, just to the public, and I have reason to hope, satisfactory to the community. Their report to me of their proceedings, I herewith lay before you. It exhibits briefly, but very clearly, the scope of their operations and the principles of their action. While you will equally with myself, feel deep regret and disappointment that the university and state lands should, in point of quality and value, fall so greatly below our previous expectations, yet I also persuade myself, that you will not feel the less disposed to approve and sanction the justice of their decisions. That portion of the report which treats of the expediency of further legislation in the matter, is in strictness, extra official. It can be considered, I apprehend, only in the light of a gratuitous expression of opinion; but it is the opinion, I have no doubt, of just and honorable men, particularly conversant with the subject; and results from their sense of what justice may seem to require; as such, I would respectfully commend it to your favorable, but cautious consideration. The general result of the minute inspection which the commissioners have taken of the university and other lands, has given occasion to the belief, on the

Digitized by Google

part of some of our fellow citizens, that the minimum prices established for all the lands over which the state has control, are, perhaps, too high, and should be reduced. Abstractly from ulterior consequences, there is, I think, some ground for such opinion; but, on the other hand, the influences which such a measure *may* exert, upon the pecuniary undertakings of the university, and especially upon the loan the institution, under the sanction of law, has negotiated upon the credit, (or hypothecation,) of these lands, or of their product in money, *at certain* legally ascertained prices, cannot, in the consideration of such a measure, be overlooked. And I submit it to you, that it is better the university should be deprived, for a time, of any productive revenue from these unsold lands, than that, in this crisis of commercial instability, a course should be adopted of doubtful tendencies, or which might bring into question the good faith of the institution.

I am not at all satisfied, gentlemen, of the soundness of the principle said to have been assumed by the treasury department of the United States, in the assignment to this state, of the lands to which we are entitled for the erection and endowment of a university. By the propositions which accompanied the admission of this state into the Union, the state became entitled to a quantity equal to two entire townships of land for those purposes. This quantity of the public domain had, indeed, been *secured* by acts of congress to the people of Michigan, *many years* before our recognition as a state. While yet under a colonial government, this grant had been holden out, not merely as a munificent donation, but as an inducement—as a lure to incite and encourage purchasers of the public lands. The strongest motives of good policy, forbade its location in a body. It was to be taken dispersed over the state in so small quantities, as that no strong local interest should be embodied and built up, peculiar to itself, and adverse, perhaps, to the general interests of the state. But the quantity of acres was not intended thereby to be diminished. The principle excepted to is this: that every fractional part of an entire tract, assigned to the state, is charged as an entire tract. Thus, if there be, among the tracts assigned, a fractional section, containing three hundred and twenty-one acres, it comes charged to the fund as six hundred and forty acres—that being the contents of a full section and an entire tract. If, on the contrary, we be entitled to claim, as a part of the university fund, a number of acres equal to the contents of two entire surveyed townships, then there remains, not yet assigned to us, a very considerable quantity; in respect to which, I hold it to be our duty to claim it as accruing, by every fair construction of the grant and propositions. And to this branch of the subject, I ask leave to invite your special attention. I must also ask your conside-

Digitized by Google

ration of the fact, gentlemen, that the legislature, under whose sanction the commissioners performed the duties above mentioned, and executed the important trust confided to them, made no provision for their compensation. They incurred expenses, devoted their valuable time, and performed labor, for which they should be justly and fully remunerated. Without assuming it upon myself to judge of the extent of what that compensation should be, I deemed it necessary that advances should be made to them; and I accordingly remitted to each of them, at Niles, out of the contingent fund placed at my disposal, such sum as I felt assured would be indispensable, and which they will severally account for when their compensation shall be determined on.

The annual report of the superintendent of public instruction, not yet exhibited to me, will, no doubt, in convenient season, be laid before you. I commend it; and the whole of this interesting subject, to your deliberation.

The administration of justice through our judicial courts, next merits our special regard. It is to that department of government we look for the protection of all our individual and natural rights. It is that department whose province it is to bring home, to the cottage and to the palace, alike, all the benefits of wise and salutary laws. A prompt, able and impartial administration of justice, by the courts, most essentially concerns the honor and the well being of our country.

It is not in my power to lay before you, satisfactorily, the condition of the business now pending before those tribunals. It would be very desirable, if it were made the duty of the clerks of the several courts of record and chancery, to make periodical returns to the department of state, with proper classification of the number of suits and prosecutions commenced, or pending, at each term within the year; the number of jury trials; the number of judgments rendered; the gross amount of debts reduced to judgment, with such further particulars as the governor, for the time being, may require. The legislature would not only thus be enabled the more satisfactorily to define the times, and limit the duration of the terms of the courts respectively, but through such a medium, much statistical information would be collected, of lasting and great usefulness. And I respectfully renew my former recommendation, that some appropriate legislative enactment to that effect, be provided.

The law to establish two additional chancery circuits, has gone into operation since the last session of the legislature. Doubts were entertained by some as to the policy of that law, in view of the existing organization of that branch of the judiciary. There being but one judge, having original chancery jurisdiction, fears were entertained, lest the increase of duties,

Digitized by Google

thus devolved upon the chancelor, might become oppressively burdensome. The experience of another year, will test the soundness of such doubts; and by the aid of such a requisition upon the clerks of courts, as I have suggested, sufficient evidence may be embodied to enable the legislature to determine upon the expediency of any further modification of the system.

The act to provide for the organization of courts of special sessions, &c., passed by the last legislature, has had, I believe, the most salutary influence in the administration of the criminal law throughout the state; and the establishment of the district court for the county of Wayne, has been attended by very beneficial effects. The criminal justice has been administered more promptly, more satisfactorily to the public, and at far less expense. In the county of Wayne alone, the judicious officers who have had the control of the fiscal affairs of the county, estimate the saving to the county, by the erection of those two tribunals, in point of expense, at near $5,000 per annum.

But in all our courts of civil jurisdiction, it is too obviously true to need formal proof to establish the fact, that within a few years past, the number of suits has increased to an extraordinary extent; and the crowded and diffused operations of our courts, are looked to with a far more general and absorbing interest than in ordinary times.

That unhappy policy of the national government, which has resulted in the confusion and almost the annihilation of the general currency of the Union; drawing after it the most fatal embarrassments in all the great interests of the country, has filled our habitations with distress, and our courts with suits. It has not accorded with the policy of the nation, for some years past, to foster our own domestic manufactures. We are still beholden to the "work shops of Europe," for most of those articles which are used among us; which true economy demands, or habit and comfort have made necessary; and which a broad and far-reaching political economy would admonish us, that we ought rather to fabricate ourselves. For articles such as these, the people of our state are in debt. The farmer, trusting to his own labor and to the smiles of Providence, for the means to meet his engagements, unhesitatingly purchases of the merchant, stores for his family, clothing for his children, and many of the utensils of his agriculture and of his household. The merchant of whom he buys, is essentially, but the factor of the wholesale dealer in the Atlantic cities; and he again owes for the same articles to his European correspondent. It is very manifest, that indirectly, the ultimate payment of the debt must here be sought for in the avails of the agricultural industry of the people; and until the general cur-

Digitized by Google

rency of the country became deranged, such a resource did not fail us. But when that currency becomes so far reduced in quantity, or destroyed in quality, as no longer to serve as an adequate medium of exchange, nor to meet the wants of a fair and necessary commerce, then the surplus produce of the farmer is no longer convertible. It finds no purchasers then, for there is nothing to buy with; and is either disposed of at a sacrifice utterly discouraging to industry, or else perishes, unavailable, upon his hands. In the mean time, debts contracted in good faith, and in the fair and ordinary course of a legitimate trade, remain unpaid. The foreign creditor, pressing for satisfaction, resorts to the federal or to the state courts, for redress. The resident merchant, to save himself from ruin, is driven to apply similar coercive means. Suits multiply; these, with accumulated interest and enormous bills of cost, terminate in judgment; and, as the ordinary commodities of traffic no longer command a market, and as there no longer remains a standard of value or of price, the catastrophe is but too likely to close in insolvency and utter ruin! If, happily, such scenes are not of every day occurrence; if they exist fearfully in prospect, rather than in full and actual consummation, in any event, the subject can hardly fail to arrest our most serious consideration. If there be no fallacy in attributing this disastrous condition of things principally to the action of the national government, then it seems quite manifest, that an adequate remedy, co-extensive with the evil, can only be looked for in a change of that national policy which induced it.

To establish a national currency, has not been confided to the states; nor does it remain with them to create any incidental institution, tending to invigorate, increase, or protect it. No power has been reserved to the states either, so far to interfere with the operations of commerce, as, without materially injuring any other interest, to foster and increase our own manufactures. And when, by a lamentable occurrence of circumstances, principally superinduced by the action of the federal authorities themselves, ruin is brought upon thousands of unfortunate debtors and their families, without any moral guilt of their own, no power exists, except with those authorities, to relieve their distress, by a well guarded and "uniform system of bankruptcy." On neither of these subjects can the separate states act authoritatively. But the expressed wishes, or the well reasoned opinions of the state legislatures on all questions of national policy, will be entitled to respect, and cannot but exert a just and salutary influence.

Entertaining myself, no doubt as to the expediency and wisdom of resorting again to those measures of general policy, which, for near half a century, have conducted this nation in a course of prosperity absolutely without example in the his-

Digitized by Google

tory of the civilized world; and the excellencies of which, moreover, have been made so clearly apparent, by the miseries consequent upon its recent abandonment, I feel myself fully authorized in recommending to your consideration, the propriety, by joint resolution or otherwise, of making known your wishes and opinions upon the matter. And, in regard to the adoption of a uniform system of bankruptcy, I feel, in like manner, well assured, that such a measure, at all times heretofore, perhaps, desirable, seems peculiarly called for, by the extraordinary exigencies of the present. Any such system, however, as should contemplate coercive action by the federal authorities, upon corporations or other political institutions, deducing their existence or their powers from the authority of the states, would be deservedly looked upon, by the states, with scrupulous care and vigilant jealousy.

In your investigation of the latter branch of this interesting subject, (an uniform system of bankruptcy,) it may be of use to you to be possessed of the views entertained of it, by a respectable body of our fellow citizens abroad. I herewith, therefore, lay before you a communication which I have received from "the philanthropic law reform association," of the city of New York, and which I am desired to submit to you.

Regretting, gentlemen, that no adequate power seems vested with you, by which to eradicate the appalling evil under which our country suffers; and that, to that end, an advisory expression of your opinion is all that seems to remain with you, I respectfully commit the subject, together with the recommendation I have suggested, to your serious consideration; but, though you may not have the power to extirpate the evil, you may alleviate some of the miseries which follow in its train.

Subject always to the controlling influences of constitutional provisions, the course and practice of the courts, the taxation of costs, and the awarding of fees, come clearly within the scope of legislative discretion.

It would be desirable, if in our courts, justice were rendered without delay and without price; but the condition of society and the character of the matters litigated, will not admit of it. The quiet and unoffending citizen, who has no litigation, should not be taxed too heavily to pay the expense of those who have. The necessary and reasonable expenses incident to the conduct of the business of the courts, should be defrayed by suitors. But when those expenses become so great as to furnish more than a fair compensation to the officers of court, and those who perform the duties required, and when, by the course of the court, those duties become unnecessarily multiplied, then the system becomes oppressive, and should be made subject to the corrective power of a legislature, studious of justice, and

Digitized by Google

of the well being of society. If this sentiment be just, at a period when the ordinary business transactions of the country pursue, uninterruptedly, their accustomed course, and no extraordinary impediment is thrown between industry and success, with what accumulated force does it apply, in a crisis like this, when the regular business of the country is broken up; when the products of labor no longer command their reasonable and fixed value; and when the general currency, the only medium, and the vital element of trade, after a fitful and feverish instability, at length threatens, too fearfully, to depart from us almost entirely.

For a long time, it has been made matter of general observation, that the table of fees allowed to our public officers, was graduated on a scale of too high a compensation, and that in our courts of record, especially, the aggregate amount in each case, of taxable costs, was oppressively great. The earnestness with which the offices of sheriff, clerk, county register, and others of that grade, were sought for, greatly strengthened the belief, that the pecuniary compensation allowed to the incumbents was greater than other branches of industry, not implying a higher degree of intellectual ability or attainment, could secure to themselves. As the number of suits, by reason of the causes I have alluded to, greatly increased, this disproportion became more generally remarked, and more onerously felt. The last legislature undertook to correct the evil. They passed the act entitled "An act to regulate and prescribe the amount of fees," reducing, by this act, the amount of charge on some items, introducing some new items, but yet considerably lessening the aggregate number of the whole, the presumption existed that the *whole subject* was intended to be embraced —the whole ground covered. While this supposition remained, the act became, on the part of some interested in its provisions, the subject of criticism. It was contended that it did not provide a sufficient compensation. Relatively to this point, I have not examined the act with the view to form any opinion.

But doubts as to the proper construction of the act seem to have arisen, and to have been brought before the judicial authorities; and by reason of expressions, perhaps ambiguous, used in the 37th section, it is said to have been decided, by one or more of the courts, that the act *did not* repeal and take the place of the old act, contained in the revised code, (*chapter two, title five, part three, page* 550,) but that it was *cumulative* only, leaving the provisions contained in the revised code, in full force, except so far as the new act provided a different compensation for identically the same items; so that the general result seemed to be, to *increase*, rather than diminish, the aggregate amount of taxable costs. How far this statement may be strictly according to the facts, I am not enabled to say.

Digitized by Google

A question arose in the state department, rendering it advisable to obtain a knowledge of the extent and grounds of the reputed decision, and I consequently made application for an exposition of them; but circumstances have not hitherto enabled me to obtain it.

The whole matter, however, is now again open to review. I am myself of the opinion, that the expenses, in the aggregate, incident to proceedings in court, are entirely too great; and, in the present condition of our country, especially, have become oppressive. Whether such results be attributable to the allowance of unreasonably large compensation for particular services rendered, or to the unnecessary multiplication of duties to be performed, or to both those causes, may be matter of question. That the practice of our judicial courts is unnecessarily complicated and intricate, is no new opinion with me; that, without materially adding to the security, or at all accelerating the march of justice, so much complex machinery greatly and onerously increases its expense, is, I think, beyond a doubt; and I can see no benefit in that deviation from the greater simplicity of practice, which is observable in the highest courts of some of the states of this Union, which can at all compensate for the greater hazard of loss from mistakes, and the increased expense which such complexity induces.

A single illustration will show ground upon which such opinion may be placed. While a suit is pending, the suitor is presumed by the law, always in court; if not personally, at least by some attorney, an officer of the court whom he has retained. It has long been the established statutory provision, that all rules, orders and other proceedings of the court should be entered of record in the journal of its daily operations, and openly read, and after correction, signed by the judge presiding. But under the existing order of proceeding, (if I rightly comprehend it,) no rule or order of the court can be enforced, unless upon proof, in certain prescribed forms, of notice to the adverse party. This is to be effected, by first obtaining a *copy* of the rule or order; of this copy another must be made, (however prolix the document,) to be *served* upon the party. This service must be established by a formal written affidavit; for which several copies, service, oath, &c., payment must be made. Should there be *joint* parties against whom to enforce the order, &c., all the same form must be gone through with, in relation to each one, by multiplied copies, &c.; and although such party or parties should have been personally present in court, when the rule is taken, or the order or other proceeding had, and when it is read from the journal, yet the same process must be pursued, and the same expense incurred; unless, indeed, that if the *service* were in the presence of the court, *mileage* might not be added to the bill of costs! Now, a simple

Digitized by Google

statutory enactment, (and such enactment would not be without precedent,) that suitors should, at the peril of consequences, take notice, without further advice or proceedings, of all *rules*, orders and proceedings, in a cause pending, duly entered upon the journal or docket, (unless under such peculiar circumstances as might warrant a deviation from such general rule,) would at once cut off this prolific source of a considerable portion of the unnecessary expenses of litigation. Other modifications of the practice might, I have no doubt, be made, which would tend to relieve the unfortunate suitor of much of the expense of litigation, and without being productive of inconveniences equal to the benefits obtained by them. Such innovations might lessen what is called the "office business" of the practicing lawyer, but I cannot think it would impair his usefulness, or lessen his responsibility. With less mere mechanical labor to perform, it would tend to place his hopes of success upon a basis more entirely intellectual. An habitual and microscopic scanning of bills of cost, never elevated the genius, enlarged the understanding, or expanded the heart of *any man*. The just claims to eminence of that most useful *and honorable* profession, never rested on so narrow ground!

Be this, however, as it may, a proper regard to the condition of this community demands, I think, and I therefore feel constrained to recommend, the express repeal of chapter two, title five, part three of the revised statutes, leaving the act of the last session, with such modifications as you may deem proper, to stand as the law of the land; and also, that such cautious and well considered change may be made, in the practice of the judicial courts, as may render it less complex, less intricate and less expensive to the suitor.

In the administration of the public justice through our courts, the agency of grand and petit jurors, assumes a most conspicuous part. It is not left with us, gentlemen, to consider of those safeguards of our civil rights and liberties. They are fully interwoven with all our institutions, and our constitution has hallowed them. The duty, however, is assigned to us, by proper legislative enactments, to secure their proper formation and their regular and proper attendance. Unless this be done, it is very certain that that inestimable branch of our judicial establishments, ceases, to a considerable extent, to subserve the high purposes for which it is instituted. So far as regards the process of their original designation from among their fellow citizens, that process is, perhaps, as free from exception, as any that could be devised. Selected, as they are intended *to* be, by the assessors and township clerks in each township, the presumption is, that they respect the institutions of their country; that they would frown upon all encroachments upon vested rights, and that they would comprise a fair portion of

Digitized by Google

the virtue and intelligence of the country. But experience, I fear, too clearly demonstrates that this system is not always properly enforced. It too frequently occurs, that the assessors and the clerk do not make the selections required, or, if they do, that the names of those selected, are not duly transmitted. The consequences are, that our juries too often consist of the by-standers about the court, or of persons selected by the sheriff or his deputy; thus giving opportunity for the exercise of an influence not always the most favorable to impartial justice, without securing so high a degree of integrity and intelligence, as if selected in the mode pointed out by the statute. To remove this evil, or obviate such dangers, I would respectfully recommend that a law be passed, subjecting all such persons as may fail to perform any of the duties assigned to them, and so clearly pointed out, to pecuniary or other penalties, sufficiently severe, to secure a more general compliance with the law. Or, if it be deemed a more effectual course, that the townships themselves, should be subject to pecuniary penalties for such neglect of duty on the part of any of their officers; at the same time, designating the mode by which the county commissioners, through their annual levy and collection of taxes, may enforce the payment of such penalty, upon a proper certification of the fact by the clerk of the court. And I would submit, also, for consideration, whether, without taking from the courts the power, upon any exigency, of filling the panel in the accustomed course, it might not be expedient to authorize them, in their discretion, to require a new or further designation of names, if, at any time, the whole number of names remaining undrawn, should prove deficient.

The public works at the state prison, have been advanced during the last season, with sufficent rapidity; and I think, with a good judgment and economy highly creditable to the present building commissioner. The whole of the west wing of the projected work, has been carried up, roofed and inclosed. The walls of the building seemed to me, upon actual view, to be of substantial material, the workmanship excellent, and the whole structure such as it should be—strong, commodious and appropriate. There will have been completed by this time, within that structure, eighty-two secure, and, I believe, sufficiently ventilated cells. These constitute one-fourth of the number that wing is capable of containing. Progress has also been made towards the completion of the yard wall. This, if practicable, it would be desirable to finish during the approaching season.

In the arrangements, so far as at present completed, there is no sufficient provision for the confinement of female convicts. It is not suitable that male and female convicts should occupy the same common apartments or prison yards. Such opportu-

Digitized by Google

nities of intercourse, would not only be against common decency, but would tend, in no inconsiderable degree, to defeat one of the main purposes of human punishment—the moral improvement of the criminal. Our statutory law does not, it would seem, sufficiently discriminate between male and female convicts, as regards the punishment prescribed. If, in your view, gentlemen, the public finances do not at present warrant the expense of such new structures as would enable those having charge of the establishment, to keep such convicts separated entirely from each other, then I would recommend that by some appropriate modifications of the existing law, female convicts may be confined in the county jails until such new and further arrangements can be effected, with the view suggested.

The report of the commissioner appointed to superintend the construction of the state prison, exhibiting more fully the present condition of the work, I herewith lay before you.

I have received no report from the agent, or the inspectors of the institution; but from the report transmitted by the inspectors to the secretary of state, the number of convicts, and *all other* matters coming within the scope of their duties, will be made to appear.

I have received from the state department of the general government, since the adjournment of the last legislature, thirty-six sets of the acts of the first session of the twenty-sixth congress, which are subject to the disposition of the legislature. As desired, I acknowledged the receipt of them, and at the same time requested, if it were practicable under existing laws, that a more ample supply should be transmitted; and with them, a competent number also of the entire code of the laws of the general government. I submit to you a copy of the correspondence, and respectfully refer to you the expediency of further action on the subject, upon your part.

As you will have perceived, another topic was introduced into that correspondence of a character somewhat more grave. The state of Michigan, bordering from Lake Erie to a point far within the limits of Lake Superior, upon a foreign nation, has a deep interest in a knowledge, at least of the *location* of its boundary. The government of the United States has reserved to itself to adjust amicably, or otherwise, with Great Britain, the establishment of this common and national limit, which becomes, by the same act, the limit of the state. That part of it with which our settlements are brought more immediately in contact, would seem to have been definitely adjusted. But, in what manner, and where, precisely, its location may be, and what islands within the straits and wide-spread lakes, may be thus brought within the legitimate jurisdiction of our courts, and what excluded from it, our state authorities are

Digitized by Google

not advised. But a moment's reflection is sufficient to enable us to perceive, that possession of official and authenticated evidence of the facts, may become, on sudden emergencies too, of the most serious importance. Indeed, it concerns the national interests and honor, that such information should be communicated to the state; for none can anticipate how soon the peace of the country may be compromitted by collisions of authority, which such an act of courtesy towards our state, on the part of the national government, might fully obviate. Without waiting to consider how far it consisted with the dignity of this nation, or its accustomed magnanimity, to withhold from one of the states of the Union, information of *its own action* in a matter so interesting to such state, until a stipulation should be entered into, touching the small expense of copying the chart exhibiting the line, I should immediately have assumed, on the part of Michigan, to defray that expense, and have accepted the proposition so courteously conveyed to me, if the communication conveying it, had not reached me so immediately before the commencement of your present session. I now avail myself of the occasion to present the subject to you, and, at the same time, to suggest to your better judgment, the propriety, by joint resolution or otherwise, of submitting an application to congress for the desired information, not doubting but that, when brought to its notice, that body will, without delay, cause it to be forwarded.

The commissioners appointed according to the provisions of the "act to vacate the seat of justice of the county of Branch, and reëstablish the same." after reasonable notice of their intentions, assembled in the county of Branch, were duly sworn and commenced the execution of the trust confided to them. After a minute and laborious examination of the county, and particularly of the various and most prominent situations to which, after much consultation with the people of the county, their attention had been more especially directed, two of the three commissioners came to the very decided opinion, that the public good would be best promoted by the selection of the town of Branch as the permanent county seat, and by continuing it there, upon the same footing, in all respects, as heretofore. On the twelfth day of May last, they accordingly so decided.

Although the permanent and proper location of the seat of justice in a county but partially settled, and in a new country, often presents questions of much perplexity, and require the exercise of much good sense and sound judgment; yet, when once so located, it ought not to be removed, except for the most cogent reasons. The evils which inevitably result from such changes are always great, and sometimes ruinous to private interests; while their tendency to unsettle the value of

Digitized by Google

property—to check the advance of enterprize and useful improvements over the country—to disturb the harmony of society, and to create and foster the local prejudices and jealousies of the people of rival neighborhoods, is decidedly injurious to the best interests of the public. One of the three commissioners did not concur in the decision of the majority. The reasons for his disagreement, he has, within a few days past, transmitted to me in writing. They are drawn up with an ability characteristic of the author. Those reasons, together with the report of the majority, long before communicated to me, I herewith lay before you. I will only superadd, that I have too sincere and too high a respect for the undoubted integrity and great intelligence of each of the commissioners, to suppose, for a moment, but that the decision of the majority was induced by the purest intentions, great deliberation and much good sense.

I herewith lay before you, a communication of a very interesting character, which I have received from the acting superintendent of Indian affairs for Michigan. I fully concur with that gentleman, touching the course of legislation indicated in the communication. By the action of the general government, the Indian title over an extensive and important part of Michigan, has become extinguished; while yet it remains, for the greater part, in its wilderness state, occupied only by the numerous tribes of Chippewas and Ottawas, from whom it was obtained, and who, in great numbers, still reside upon it. This district of country comprehends all that portion of the peninsula which lies west of Thunder bay, and north of Grand river, extending to the straits of Michilimackinac; and also, the country situated between lakes Huron, Michigan and Superior, from the latitude of Point Detour, on the Ste Marie, to the mouth of the Chocolate river, of Lake Superior. How far the exclusive jurisdiction of the state authorities over a district of country within its undoubted limits, but over which the Indian title has not been extinguished, can rightfully be maintained, is a question which has been much agitated in the national councils; but no doubt remains but that the state possesses plenary powers over that part of it of which the Indian title is extinguished; and the decisions alluded to, by which it would seem that penalties provided for in the "Act to regulate trado and intercourse with the Indian tribes," &c., cannot by law be enforced over a country of which the Indian title is extinguished, are unquestionably correct. The right then, being fully recognized, the *duty*, I think, becomes more imperative. Shall the poor defenceless inhabitant of the forest, the native sovereign of the beautiful country we inhabit, be left a prey to the vices of the white man? Shall the last of their council fires be extinguished forever, amid the revels of drunkenness, superin-

Digitized by Google

duced by a reckless cupidity, speculating in ardent spirits? I recommend, gentlemen, the adoption of such parts of the act of congress above alluded to, as shall be deemed by you applicable to the exigency; and especially those parts of it which prohibit the introduction of ardent spirits into that, which will continue to be deemed by them, to be *their* country, until the public domain shall have been converted into the fixed residence of the white man; and further, that all persons be utterly prohibited from the sale or gift, under any pretence whatsoever, of intoxicating drinks to Indians.

Among the duties devolved upon the executive of the state, there are few perhaps, that in their exercise, involve a higher degree of moral responsibility, than such as concern the removal of subordinate officers of the government, especially of justices of the peace, (of whom there are of necessity, in every part of the state, so many,) upon charges filed. It is painful to consider how imperfect is human testimony; and how frequently personal prejudices, originating perhaps in a sense of injury suffered, honestly, but perhaps unjustly entertained, may induce such suppression or coloring of proof, as may lead to individual wrong? The governor *must* remove from office a magistrate *convicted* of an "infamous" offence. He may remove such officer for offences not coming within the technical meaning of "infamous," without judicial *conviction* or prosecution. The constitution of the executive department is not so well adapted to the development of guilt, nor to the protection of innocence, as the judiciary. And it must always be preferred, when practicable, that charges of indictable offences should be established *judicially*, before the executive should proceed to a final amotion. But the delays necessarily incident to judicial action, may *sometimes* compromit the public safety; and during the period that intervenes between the commencement and the termination of a criminal prosecution, immeasurable mischief may be committed by an unworthy man in office. I would recommend then, that the fourth chapter, title three, part one, be so far amended as that for "infamous" offences, as well as for those indictable offences, which, in the sense of the statute, are not "infamous," the governor may in his discretion, *suspend* from office upon such charges, without positive eviction, until judicial investigation may be instituted and closed.

Early in the month of November last, I received from his excellency the governor of Virginia, a communication covering a copy of proceedings had by the senate and house of delegates of that commonwealth, concerning certain fugitives from justice, a surrender of whom, to the authorities of that state, was demanded of the governor of New York, with a request that they should be laid before you. It will not be considered

Digitized by Google

necessary, nor is it proper, perhaps, that I should at present enter into a discussion of this subject. It connects itself materially, however, with the administration of justice, and is of deep interest throughout the Union. I cannot allow myself to doubt, gentlemen, but that while you extend, at all times, around the personal security and the natural and civil liberties of our own fellow citizens of Michigan, every necessary and proper protection, it will never be forgotton by you, that the just constitutional rights of the states, must at all hazards and at whatever sacrifices, be forever preserved inviolate. Anticipating that you will give to this subject all that attention, which is due from a consideration, as well of the high source from which it emanates, as of the intrinsic difficulties which it presents, I respectfully submit it without further comment.

Concerning the public works heretofore projected, with a view to the internal improvement of our state, my first opinions have continued, with but little change. And I ask leave, very respectfully, to refer to the general views I expressed on that absorbing subject, in my first message to your immediate predecessors. With some qualifications, the sentiments I then entertained, as to the course of policy which prudence and wisdom would indicate, have been strengthened by whatever changes time may have produced in our relative condition. Some further considerations have pressed themselves upon me, however, to which I venture to allude. Deeming it my duty, as far as practicable, to make myself acquainted with all the great interests of the state; and being advised of the projected work upon the St. Joseph river, I held it proper that I should obtain more knowledge than I possessed of that, as well as of some other parts of the state. Of the capabilities for the navigation of that stream, and of the character and extent of the resources of the country which it waters, I desired more fully to acquaint myself. The cursory examination I was enabled to make, has resulted in the conviction that the best interests of the state require, that the contemplated improvement should progress. The population of that portion of the state, already so respectable for its intelligence, enterprise and numbers, must greatly and, I think, rapidly increase; for no country is more fertile; none can furnish in greater abundance and variety the products of agricultural labor; none exhibits greater natural facilities for manufactures; none more ample hydraulic powers, and no part of our country holds out greater promise of permanent salubrity than the beautiful valley of the St. Joseph, from its termination at the town and port of St. Joseph, until it approaches the splendid district of Prairie Ronde. The natural outlet for the productions of this valley, already of great amount and value, is the St. Joseph river. Its navigation, for a great distance, may be made good at a comparatively small

Digitized by Google

expense; and should Indiana continue to withhold all aid in the improvement of the navigation of that small portion of the river which is within her borders, it will become a question of deep interest with Michigan, when her resources shall have become more ample, how far it may be practicable to unite the two sections of the river by a short canal, entirely within the limits of our own state. This important avenue ought not to be blocked up, nor its ample commerce drawn off, to enrich and build up some large commercial city upon the shore of the lake, to the south of us. No measures within the power of Michigan, should be omitted to prevent the diversion of that commerce from its natural source and point of concentration at the town and port of St. Joseph. All speculative considerations of this character, however, which reach beyond the appropriations already made, except so far as they may tend to fix the future policy of the state, seem precluded by the paucity of pecuniary means now left within your control. The sudden subtraction from the available resources of the state, of near half a million of dollars, by the mysterious operations of the State bank and of the fiscal agents of the state, followed by the necessity of again borrowing money upon the credit of instalments of the five million loan, not yet payable, and by the still more appalling intimation that the whole sum due to the state by the Morris canal and banking company, now amounting to more than $800,000, was in the most imminent peril of total loss, with other considerations, perhaps, induced the last legislature, as you are doubtless aware, gentlemen, to close its session without any efficient provision for the advancement, (beyond the expenditure of the existing appropriations,) of that bold plan of internal improvement which has been unhappily devised; except, indeed, that they sanctioned (and wisely, perhaps,) a further extension of it, by the purchase in behalf of the state, of that portion of the Lake Erie and River Raisin railroad, which extends from Monroe to La Plaisance bay harbor.

And in truth the plan originally devised, was altogether disproportioned to our means; it was gigantic and visionary. I suppose it to be the part of wisdom, in private life, to do *one thing* first. It cannot be otherwise with states! It can never be either expedient or wise, to undertake more than can be fitly and within a reasonable time, accomplished. But with us in Michigan, we have many things begun, but nothing finished. We have nothing yet productive! It is nevertheless very manifest that if the whole of the resources of the state had been concentrated on any one of the important works devised, such work would, most probably, have been accomplished before this time.

If judiciously selected, it would have been productive, too,

Digitized by Google

and with an income from tolls, large enough, not only to meet the demand for interest, but gradually to discharge the principal. The state would now have been so far unembarrassed, as that, with fair hopes and cheerful ardor, it might have undertaken such other work, as would have ranked next in point of importance to the first. Nor would the sad alternatives then have presented themselves, of a course of heavy taxation to pay the semi-annual interest upon the public loan, on the one hand, or, a decayed credit, a forfeited faith, and a blackened reputation on the other, to check our courage and darken our bright prospects for the future. And, to rescue our constituents and our state from a condition so rapidly approaching, and yet so humiliating and so full of peril, I think, gentlemen, that but one course remains, that is, to consent to look at our great public works, solely as a matter of finance; as a measure of pecuniary concern merely; at once, and manfully, to sacrifice on the altar of true honor and patriotism, all local prejudices and partialities, and, with one accord, to apply all the available means that remains to us, to the completion of that one of them, which will most certainly be productive; which, from a *full consideration* of all circumstances, and an honest estimate of chances, will furnish the *strongest and best guaranty*, that its pecuniary avails will the most certainly be equal to the semi-annual interest which the state *must* soon cast about for ways and means to pay. And I greatly deceive myself, gentlemen, as to the intelligence and sound judgment and patriotism of our fellow citizens of Michigan, on this matter being plainly and with candor placed before them, they will almost with one voice, unqualifiedly, approve of and sanction the measure.

If, upon consideration, you should determine upon this principle of action, it will remain to ascertain which of the different public works will furnish the greatest amount of pecuniary profit. The statistical information contained in the returns of the United States census, now recently completed, and to which you will doubtless have access, will probably greatly aid you in your efforts on this point, to arrive at just conclusions. I herewith, also, respectfully submit for your consideration, communications I have received from some distinguished gentlemen, living in the interior of the peninsula, on the same subject. And should your investigations lead to the conclusion, that the Central railroad will be more certainly productive of such profit than any other of the public improvements commenced, it will perhaps be satisfactory to fortify such conclusion by the consideration that the faith of the state is by many considered as pledged for the early completion of that work; for it will be perceived by the communication of the president of the "Detroit and St. Joseph railroad company,"

Digitized by Google

to be found among the printed documents of the senate, of 1837, that assurances on the part of the state that such road *should* be completed, constituted a condition, or a material part of the consideration of the sale, by that company, of its chartered rights, and the sale being effected, the motive of its voluntary dissolution.

But whichsoever of the public works may be selected, upon which *first* to apply the undivided energies and pecuniary means of the state; or, indeed, whatsoever other course may be taken in this regard, radical changes, I apprehend, will be found necessary—in the process and in the application of the proceeds of the "general" or property tax for state purposes, —in the act for the appraisement and satisfaction of damages, claimed for right of way, &c., and in other parts of our financial system.

During the last session of the legislature, very large appropriations, (made in previous years,) on the public works, were outstanding and unexpended, because there were no adequate funds in the treasury. Nor indeed were there any to defray the ordinary expenses for the support of government. To provide for those wants, it was deemed necessary to pass the "act to authorize the anticipation of certain instalments of the five million loan." This was pursuing, essentially, the policy in this regard, of former years. Since the first formation of our state government, the "civil list" has invariably been met by *borrowing*. And, in this particular, the leading provisions of the act of March, 1839, were reënacted and renewed. For the time being, this course has subserved its purpose. After communicating with the different banks, the auditor general closed an arrangement with the Bank of Michigan, by which the sum of about $605,467 50 has been obtained; of which, $100,000 were placed, according to law, to the credit of the "general fund," and the residue to that of the "internal improvement fund." These advances were made upon the credit of instalments not then payable—the last of which, indeed, does not become payable until April, of the present year. In consenting to this arrangement with the auditor general, as, indeed, in all its negotiations with the state, of which I have any knowledge, it gives me great satisfaction to say, the officers of that useful institution, have uniformly conducted towards the state in a spirit of commendable liberality, honor and patriotism.

Funds being thus obtained, progress has been made on all the most important lines of improvements. And, during the fiscal year, the actual disbursements in this branch of the public economy, as will be more fully shown to you by the report of the board, amount in the aggregate, to the sum of $463,816 85, exclusive of the cost of the new purchase at La Plai-

Digitized by Google

sance bay. It further, by that report, appears, that during the period intervening between the 1st of December, 1837, and the 31st of March, 1840, there had been paid on the Southern railroad, $120,793 39, and a further sum of $56,981 47, passed upon and allowed by the acting commissioner, since the 31st of March last. To which sum, if the cost of the new purchase of the La Plaisance bay road, ($32,500,) be added, the total amount of expenditures for the year, upon that line of improvement, would be equal to $210,274 86. The amount actually paid upon liquidated claims, for work on the Central railroad, appears to be $56,774 42. The amount now appearing due on that portion of the route, which is between Dexter and Jackson, is estimated at $17,476 10, and upon the presumption of future appropriations by you, the bank of Michigan appears to have advanced, in aid of the road from Ann Arbor to Dexter, the sum of $34,387 54, equal in the aggregate, to $102,648 96. The amount expended on the Clinton and Kalamazoo canal, from December 1, 1839, to April, 1840, appears stated at $32,897 18, and from the latter period to December 1, 1840, at the sum of $134,615 10, making, in the aggregate, the sum of $167,512 20, leaving unexhausted the sum of $20,000 of former appropriations; which sum, together with the addition of $21,739 10, it is estimated would complete the canal from Rochester to Frederick, and within two and a half miles of Mt. Clemens. The duties which have devolved upon the board of internal improvement during the past year, have been incessant and laborious. The perplexed and unsettled condition in which the affairs, contracts and funds of the board were found, will sufficiently appear by reference to the voluminous report of the committee of investigation, appointed by the house of representatives, and which held its sittings during the recess; to which report, I respectfully solicit your attention.

The appraisers appointed at the last session of the legislature, in virtue of the "Act for the regulation of internal improvement," commenced their sessions early after the adjournment of the legislature. The duties assigned to those gentlemen were of a highly important, grave and difficult character. And it soon became evident, that the aggregate amount of allowances, would far exceed the appropriations and funds applicable to the object. Anticipating the probability of such result, I felt myself desirous that the board should receive, examine into and so far pass upon the whole, as to ascertain their character, and the aggregate amount of such as they might deem just and fair, with a view to a proper dividend among all, in proportion, of the funds applicable to that object; or, without making final decision upon any, (if the amount should, as I apprehended, far exceed the present means of the treasury,)

Digitized by Google

to prepare and make to you a full report upon them, that in your wisdom, you might make such final provision for them, as might seem to you just, and within your power; but the appraisers not deeming it competent for them to adopt a course which should induce so great delay, and withal, it appearing to them just, and according to the intent of the law, that those whose claims had been ascertained and affirmed, should not be further delayed of payment, they proceeded to definite action upon them severally, as they were taken up. The amount of claims on the canals and northern railroads, allowed by the board, soon amounted to the sum of $30,815, which were paid or adjusted by the auditor general. Claims on the Central railroad amounting to near $6,000, were ascertained to be well founded, and others, exceeding $10,000, on the same route, were exhibited, and to the amount of $20,000 on the Northern railroad, near $14,000 on the canal, $3,000 on the Saut de Ste Marie canal, and to $46,560 on the Southern railroad, were presented, constituting, in the whole, an amount exceeding $130,000. In short it became manifest that if the board should persevere in passing definitely upon all claims presented, the existing resources of the treasury, at all applicable to the object, would be forthwith exhausted, and a special session of the legislature would become indispensable, to provide ways and means to carry on the ordinary operations of the government. In these circumstances, I could no longer hesitate as to the course which prudence indicated, and earnestly recommended to the board of appraisers, to suspend their further action. I now respectfully recommend the revisal of all existing provisions relative to the appraisement and satisfaction of claims of damages for the right of way; and that either a definite sum, to be determined by the legislature, be proportionably divided among all whose claims are found to be just, or that such future board as may be appointed to perform this necessary duty, be directed to report their decisions to the legislature for confirmation, before payment is made upon them.

The report of the auditor general will be laid before you, gentlemen, and I recommend it to your most serious consideration.

It cannot be necessary for me to press upon your notice, gentlemen, that it is at once our interest and our duty, to cherish the public credit, and save inviolate, the public faith. These are axioms which are at the foundation of all good government. It is our duty to see that they constitute the broad basis of our own. All government is attended by expense. To meet that expense, there must be taxes. All taxes are inconvenient, and often lead to discontent. If they be *unjust* or *unequal* they *always* do. But if they be *just* and *equal*, an enlightened people will meet them cheerfully; for all know

Digitized by Google

that government cannot be sustained without expense. But it is also necessary that these taxes should be rightfully apportioned, and these expenses defrayed with good judgment, and for proper purposes. A wise legislature cannot effect all this without a well balanced and a judicious system of finance. Have we such a system in Michigan? I beg to call your attention to some results exhibited to you in the auditor's report. For the year 1838, as he states to you, that the amount of assessments of taxes for the support of the state government, was $85,906 97; but the expenditures for the support of government for that year, were $168,485 09. The amount of assessments for 1839 was $92,385 43, and the expenditures during the same year amounted to $169,368 95, besides leaving a large amount unpaid and to be met by the ways and means of the succeeding year. In short, it appears that during the first four years of our state government, a debt of nearly $40,000 has been created, beyond the means provided for its redemption! I am sure it cannot be necessary that I should entreat your serious and earnest consideration of these demonstrations. They force themselves upon our attention. Nor can we fail to perceive, that unless a corrective is found, their ultimate tendency is to dishonor and ruin! The question with you then, fellow citizens, will rather be, how best to avert the evils? Where is the best corrective to be found? Shall we look for it in a decrease of our expenditures? The interest upon the public debt must be paid. Our causes of expense are already greatly decreased; and the auditor general has said to you, that with the exception of the trifling sums paid for the inspection of brigades, and the reduction of the sum paid for bounty on wolves, he can see nothing that would materially reduce the annual demands upon the treasury. Would you further decrease the compensation of those who are employed in the public service? This would be perhaps a fearful experiment If you lessen compensation much below the point which talent and intellectual endowment, and unquestioned integrity would command in the private vocations of life, you would drive much talent and intellectual capacity from the public councils. No poor man, honest and capable, could afford to serve you. His duty to his family and to himself, would compel him to seek employment elsewhere. Your government then would remain only with the wealthy. This is not the theory of our institutions; or else, with those who would seek remunerations for their services, by converting political power to improper and selfish ends! If, then, retrenchment in the compensation of the agents of the people, be neither just nor politic, it results, that the treasury must be replenished by an increase of taxes. But the public taxes are already onerous. Many of them on real estate are no longer paid, and the lands

Digitized by Google

are falling fast within the grasp of the speculator! And vast is the mischief, and incalculable is the amount of judicial litigation to which this course will give birth! One million and a half of acres—or according to the computation of others, two million and a half of acres of land—within the state, remain exposed to this process of sale for taxes! Such a condition of things cannot be too much deprecated. But why is it that so many acres are advertised for sale? Your auditor's report exhibits the cause. The amount of tax assessed for 1839, for state purposes, upon an eighty acre lot of land, upon a general average, varies, he tells you, "from 40 to 59 cents; while that for the counties varies on the same lot, from 65 cents to $2 52; the road taxes, from $1 20 to $5 00; and the highest amount of school tax, is stated at 12 26." And if the largest amount which has been assessed upon any lot, be taken as the average upon the entire valuation of property of the state, the result would show an aggregate tax over the whole state, of more than $4,800,000 per annum!

A system which leads to such enormity, I am persuaded, cannot endure; a system practically so unequal, so oppressive and so extravagant, ought not to endure. I respectfully recommend a further restriction upon the power vested in the county commissioners, to assess taxes for county and township purposes, coupled with authority to levy specific taxes, for county purposes, where necessary.

I also recommend a total abolition of all authority heretofore vested in commissioners of highways, and all other local officers, to levy any road or highway tax whatsoever, upon real estate; and in lieu thereof, to direct the auditor general to assess, levy and cause to be collected in the same manner as other general state taxes are by law to be collected, such an amount of taxes as you may deem necessary and expedient, to be divided ratably, apportioned and paid over, to the several local officers, whose duty it is under existing laws to disburse and pay out highway taxes, and that in making such assessments, the auditor general, (or other state officer,) compute the same according to the *quantity* of the land, the number of acres, and *not* according to the increased value imparted to it by the industry of the owner or occupant, except so far as you may deem it expedient to make other provisions for city or town lots; and that as regards taxes for school purposes, that the auditor general add to his assessments of general and state taxes, such further sums as you may deem expedient to be paid over to the proper disbursing officers of the several school districts of the state, in just and ratable proportions. And in order to supply the deficiencies in the state treasury, I would recommend such increase of the rate of the "general state tax," as you may deem adequate or necessary, that so much

Digitized by Google

of the general state tax as is duly collected annually, be placed in the books of the auditor general and state treasurer, to the credit of the general fund, and not to the delinquent tax fund, so that the taxes actually collected and paid over each year, shall no longer be charged with the payment over to the counties, of the delinquent taxes accruing to such counties, or for county, township, highway or school purposes in the same year. I would further respectfully recommend that some mode be adopted by you, (by state commissioners of equalization, or otherwise,) to cause the valuation and assessments returned from the several counties annually, to be equalized, so that hereafter there may be a more equal standard of value.

I make these suggestions concerning our revenue and financial system, gentlemen, with great deference for your experience and collective wisdom. So complex and difficult a subject, I desire to approach with great diffidence of my own capacity to do justice to it; but I make them because it is my duty to recommend to you such measures as may seem expedient, and because it is my fixed opinion, that some such measures have become indispensable.

I have received, gentlemen, some communications from the state geologist, and from the adjutant general, which, having reached me at a very late hour, must become the subjects of a future communication to you.

During your present session, or at some adjourned or special session to be holden by you, it will become necessary for you to apportion the state anew, into senatorial and representative districts. Circumstances may exist to render it proper that I should at some future period during your session, make a further communication to you on that subject; but in the interim, I ask leave, respectfully, to refer to my correspondence with the secretary of state of the United States, in which allusion is made to it.

The act passed during the last session of the legislature, for the appointment of a United States senator, has expired by its own limitation. The provisions on that subject, contained in the revised statutes, may be deemed by you sufficient to meet the present exigency, perhaps. In any event, the importance of filling the vacancy which will soon exist, in consequence of the approaching expiration of the term of service of the honorable John Norvell, will not escape your observation.

I have received communications from some of the states of the Union, and also from the district of Columbia, which, as well also as the unsettled condition of the currency of the state, will probably be made the subject of a future special message.

I feel it to be my duty, gentlemen, again to ask the attention of the legislature to the unauthorized and forcible interruption, by the troops of the United States, of the public works of the

Digitized by Google

state, during the year before last, at the Saut de Ste Marie. The pecuniary loss to the state, resulting from that reprehensible interposition, remains unsatisfied, and the injury to its honor, unatoned for. I respectfully then, renew my recommendation of the last year, that the matter be formally presented to the consideration of congress; and with that view, ask leave to refer to the able report presented by a committee at your last session, to the house of representatives, on that subject.

I also present for your consideration, some communications between myself and the officers of the general government, concerning the rude and unjustifiable action of some of the subordinate officers of the customs at this place, in relation to the honorable the late speaker of the house of representatives, which took place at the time of the adjournment of your last session.

The honor and prosperity of our state, and the happiness of our constituents, are the great objects for promoting which, it is our duty—with a humble submission to the Divine will—to use our best efforts. And it will give me great satisfaction to be enabled to co-operate with you in any measure leading to so great blessings.

WILLIAM WOODBRIDGE.

January 7, 1841.

—

Documents accompanying the Governor's message.

Executive Department, Oct. 23, 1840.

SIR—I have the honor, in obedience to a resolution of the last general assembly of Virginia, to transmit a preamble and resolutions, adopted by that body, in reference to a demand made by the executive of this state, on the executive of the state of New York, for the surrender of certain fugitives from justice, and to request that they may be laid before the legislature of your state.

With distinguished consideration,
I have the honor, sir, to be,
Your obedient servant,
THOMAS W. GILMER.

To his excellency the GOVERNOR *of Michigan.*

—

The committee to whom was referred so much of the governor's message and accompanying documents as relates to his demand upon the executive of New York for the surrender of three fugitives from justice, have had the same under consideration, and agree to the following report:

Digitized by Google

In July last, the executive of Virginia made a demand upon the governor of New York for the surrender of Peter Johnson, Edward Smith and Isaac Gansey, attached to the schooner Robert Center, *then* in New York, who were duly charged by affidavit regularly made before Miles King, mayor and justice of the peace for Norfolk, with having feloniously stolen and taken from John G. Colley, a certain negro slave, Isaac, the property of said Colley. The governor of New York refused to comply with the demand, and assigned as his reasons for the refusal, that the right to demand and the reciprocal obligation to surrender fugitives from justice between sovereign and independent nations, as defined by the law of nations, include only those cases in which the acts constituting the offence charged, are recognized by the universal law of all civilized countries; that the object of the provision in the constitution of the United States relative to the demand of fugitives from justice, was to recognize and establish this principle in the mutual relations of the states as independent, equal and sovereign communities; that the provisions applies only to those acts which, if committed within the jurisdiction of the state in which the person accused is found, would be treasonable, felonious or criminal, by the laws of that state; that no law of New York at this time recognized, no statute admitted, that one man could be the property of another, or that one man could be stolen from another; and that consequently the laws of this state making the stealing of a slave felony did not constitute a crime within the meaning of the constitution.

Your committee have bestowed upon each of these propositions, the reflection which their importance demanded; and that reflection has brought them to very different conclusions from those arrived at by the governor of New York.

A citizen of one nation is permitted to enter the territory of another upon the tacit condition that he shall not violate her laws. If he does violate them, he may be punished according to those laws, if apprehended while he is within their jurisdiction. If he escape and take refuge in his own country or any other state, he may be demanded as a fugitive from justice.

Whether such demand ought to be made, and if made should be complied with, is a matter to be judged of by the respective authorities making and upon whom the demand is made, each for itself. The lesser offences are usually connived at, and in such cases the state, whose laws have been violated, is satisfied when the offender has departed beyond its limits. So the state upon whom the demand is made, may, in some cases, refuse to comply with it. Where the offence was of a trivial nature, it might decline to comply; and in such case, the demand, if made, would rarely be insisted on. When the offence was one created by tyrannical laws, leading to oppression or persecu-

Digitized by Google

tion, or where the mode of trial was to be inhuman or inquisitorial, it would be under the most solemn obligation to refuse to comply. But the state, in exercising its acknowledged right of judging for itself, would do it under the highest responsibility. If it exercised its right indiscreetly, and refused improperly to surrender a criminal whose surrender had been demanded, it would become itself a participator in his guilt, and give just cause of war. The cases in which fugitives from justice ought to be demanded by one power and surrendered by another, under the law of nations, have never been specifically defined. It would be very difficult to define them; and it is perhaps better that each case should be judged of by its own circumstances.

But, in the opinion of your committee, it is not necessary to pursue farther this branch of the subject. In their opinion, the case which they are considering, does not arise under the law of nations, but under the constitution of the United States; and they cannot acquiesce in the proposition advanced by the governor of New York, that the provision of the constitution is but a recognition of the established principles of the law of nations. They entertain the opinion that that provision is an *extension*, and not merely a recognition of the principle of the law of nations. The only difficulty upon this point originates in a doubt whether the governor of New York has not restricted too much the principle regulating the conduct of independent nations in this particular. A distinguished jurist of his own state, in a solemn judicial decision, has said: "It has been suggested that theft is not a felony of such an atrocious and mischievous a nature as to fall within the usage of nations on this point. But the crimes which belong to this cognizance of the law of nations are not specifically defined; and those which strike deeply at the rights of property, and are inconsistent with the safety and harmony of commercial intercourse, come within the mischief to be prevented, and within the necessity as well as the equity of the remedy. If larceny may be committed, and the fugitive protected, why not compound larceny, as burglary and robbery, why not forgery and arson? They are all equally invasions of the right of property, and incompatible with the ends of civil society. Considering the great and constant intercourse between this state and the provinces of *Canada*, and the entire facility of passing from one dominion to the other, it would be impossible for the inhabitants of the respective frontiers to live in security, or to maintain a friendly intercourse with each other, if thieves could escape with impunity by merely crossing the territorial line. The policy of the nations and good sense of individuals, would equally condemn such a dangerous doctrine." (4 *Johnson's chancery reports*, 131.)

Digitized by Google

Your committee will not argue the proposition, whether the governor of New York has not stated the principle of the law of nations, on this point, too broadly. But, in their opinion, it is certain that he has either stated it too broadly, or that he is wrong in supposing that the provision of the constitution relating to the surrender of fugitives from justice, is but a recognition of the law of nations. Your committee will not as they well might, insist that the governor of New York is wrong in both propositions; but they, with due deference, insist that he is clearly wrong in the last. That the second clause of the second section of the fourth article of the constitution of the United States, is not a mere recognition, but an extension of the principle of the law of nations, relating to the demand and surrender of fugitives from justice, is equally clear, in the opinion of your committee, whether we refer to the letter or the spirit of that section.

There was great reason for restricting, by the law of nations, as much as possible, the class of cases where one state might demand, and another would be required to surrender, fugitives from justice. In every country of Europe, the criminal laws have been rude and imperfect. This may be said, whether we judge of them from their conformity to truth and justice, the feelings of humanity and the rights of mankind, or by comparing them with the civil jurisprudence of the same countries. The inhumanity and mistaken policy of most of these codes, need not be pointed out. With some of them, suspicion was the evidence, and the rack the mode of trial. There was, therefore, great reason for caution, on the part of every nation, lest its citizens might be dragged abroad to be tried by foreigners, in modes of trial to which they were unaccustomed, for imaginary or arbitrary offences. But when our constitution was adopted, there was no reason for any such caution, with regard to the rights and duties, in this particular, of the several states composing this confederacy. In each of them, even before the adoption of the constitution, crimes were accurately defined, and penalties were neither arbitrary nor uncertain; all accusations were public; trials were in the face of the world; torture was unknown, and every delinquent was judged of by his peers, against whom he could form no exception, even of personal dislike. That constitution was adopted by those states in order to form a more perfect union; to establish justice; insure domestic tranquillity; provide for the common defence, and promote the general welfare. And by its provisions, which are the supreme law of the land, it guaranties to every state in the Union, a republican form of government. It provides that the trial of all crimes, except in cases of impeachment, shall be by jury; that *such trial shall be in the state where the crime was committed;* that no person

Digitized by Google

shall be held to answer for a capital or otherwise infamous crime, unless on a presentment or indictment of a grand jury; that no person shall be subject, for the same offence, to be twice put in jeopardy of his life or limb, nor shall be compelled in any criminal case, to be a witness against himself; nor be deprived of life, liberty or property, without due process of law; that excessive bail shall not be required; nor excessive fines imposed; nor cruel and unusual punishments inflicted.

In a constitution formed under such circumstances, with such objects, and containing such provisions, one would not expect to find a clause specifying the cases where the demand of a fugitive from justice might be made by one state upon another, which could only be justified by a doubt of the justice, humanity and clemency of the different parties to it. On the contrary, one would look, in such a clause, for an expression of the greatest confidence, by each of the states as parties, in all the rest of these particulars. Nor can your committee believe that a clause in such a constitution, securing to one state the most unlimited right to demand, and imposing upon another the most unqualified duty to surrender fugitives from justice, would impair the security of civil liberty. And such a clause your committee believe the second section of the fourth article to be. The second paragraph of that section is in these words: "A person charged in any state with *treason, felony, or other crime*, who shall flee from justice and be found in another state, shall, on demand of the executive authority of the state from which he fled, be delivered up to be removed to the state having jurisdiction of the crime." The words treason, felony and crime, are common law terms. The common law was the law of the land in each of the states which were parties to the constitution, and the terms of it were familiar to its framers. They must, therefore, be taken to have been used in their common law sense. Your committee will not stop to inquire into the meaning of the terms treason and felony, in the constitution; they will confine such inquiry to the word crime, that being the most comprehensive term used. Blackstone defines *a crime* thus: "A crime or misdemeanor is an act committed or omitted in violation of the public law, either forbidding or commanding it." He goes on to say: "This general definition comprehends both crimes and misdemeanors, which, properly speaking, are mere synonymous terms." Misdemeanor is generally used in contradistinction to felony, and misdemeanors comprehend all indictable offences which do not amount to felony, as perjury, libels, &c.

Your committee flatters itself that it has shown already that the second section of the fourth article of the constitution of the United States, is not a mere recognition of the principle

Digitized by Google

of the law of nations, regulating the right to demand by one nation, and the duty to surrender by another, fugitives from justice; but that that clause is much more comprehensive, and was designed as between the states of this Union, to provide a more perfect remedy than was afforded by the law of nations.

But if a further argument was necessary, to enforce this view of the subject, it might be derived from the first paragraph of this very second section of the fourth article. That paragraph is in these words: "The citizens of each state shall be entitled to all privileges and immunities of citizens in the several states." The first paragraph of this section secures to the citizens of each state, all the privileges and immunities of citizens in the several states; and the second paragraph but enforces correlative obligations and duties. Thus are the privileges and obligations of the citizens made reciprocal. The citizen of one state, while he is within the jurisdiction of another, is entitled to all the immunities of a citizen of that state; but if he violate her laws, he is subject to the same punishment.

If any doubt should still exist as to the correctness of this position, it would be removed, in the opinion of your committee, by the proceedings of the convention which framed the constitution, in relation to this clause:

"The original articles of confederation contained a clause in the following words:

"'If any person guilty of, or charged with treason, felony or other high misdemeanor, in any state, shall flee from justice, and be found in any of the United States, he shall, upon demand, of the government or executive power of the state from which he fled, be delivered up and removed to the state having jurisdiction of his offence.'

"In the convention of 1787, the committee to whom were referred the proceedings of the convention, for the purpose of reporting a constitution, reported a draft, in which the fifteenth article was as follows:

"'Any person charged with treason, felony, or high misdemeanor, in any state, who shall flee from justice and shall be found in any other state, shall, on demand of the executive power of the state from which he fled, be delivered up and removed to the state having jurisdiction of the offence.'

"When the draft was before the convention, on the 28th of August, 1787, it was moved to strike out the words 'high misdemeanor,' and insert the words, 'other crime;' which motion passed in the affirmative."

And your committee will add, that there has been a late decision in New York, sustaining this view.

In the matter of Clark, (9 *Wendell*, 212,) the then governor

Digitized by Google

of New York, and the chief justice of the state, in conformity with these views, both decided, that a person who was charged with a misdemeanor only, in one state, and had fled into another, ought to be delivered up, upon the demand of the executive of the state within which the offence was alledged to be committed. And the misdemeanor charged in that instance, was not one which was recognized as such by the universal law of all civilized countries, but at common law amounted only to a breach of trust. This decision was made after the most elaborate argument and investigation.

The second section of the fourth article of the constitution as thus construed, is just such a provision as the convenient administration of justice demanded. Each state having confidence in the justice and clemency of the others, nothing forbade, and convenience required that an offender who had committed a crime in one state, no matter where found, should be removed to that state for trial. Most likely, there would be found the evidence of his guilt; there the laws which he had violated, would be best understood, and most perfectly administered; and above all, the characters of his accusers more properly appreciated.

In the opinion of your committee, the next position assumed by the governor of New York, is as untenable as the first, to wit: That the second section of the fourth article applies only to those acts which, if committed within the jurisdiction of the state in which the person accused is found, would be treasonable, felonious, or criminal, by the laws of that state. If the construction contended for by the governor of New York, be the proper one, then the provision in the constitution was unnecessary. "The jurisdiction of every sovereign state extends to the whole of its territory, and to its own citizens in every part of the world. The laws of a nation are rightfully obligatory on its own citizens in every situation where these laws are really extended to them. The principle is founded on the nature of civil union. It is supported every where by public opinion, and is recognized by the writers on the law of nations. Rutherford, in his second volume, (page 180,) says: "The jurisdiction which a civil society has over the persons of its members, effects them immediately, whether they are in their territories or not." (*Chief Justice Marshall's speech in the case of Jonathan Robins.*) If the provision, securing the right to demand a fugitive from justice, was only to operate where the laws of New York were violated, then it was superfluous, as New York might enact a law providing for his punishment, if apprehended within her territory, no matter where the offence was committed. And in accordance with this principle, the legislature of that state has enacted a statute, punishing offences committed by its citizens without her territory. (2 *R. S.*,

Digitized by Google

698, § 4.) That the clause was not designed to provide only for the case of a citizen of one state taking refuge in any other state than the one of which he was a citizen, is admitted by the governor of New York himself. "It has long been conceded," he says, "that the citizens of the state upon which the requisition is made, are liable to be surrendered as well as citizens of the state making the demand."

The correctness of the position taken by your committee, is sustained, also, by a solemn judicial decision of New York. In the matter of Clark, chief justice Savage declares: "With the comity of nations, we have, at present, nothing to do, unless, perhaps, to infer from it that the framers of the constitution and laws intended to provide a more perfect remedy, *one which should reach every offence criminally cognizable by the laws of any of the states;* the language is treason, felony or other crime; the word crime is synonymous with misdemeanor, and includes every offence below felony punished by indictment as an offence against the public."

But admit that your committee is wrong in this; restrict the clause as much as is contended for; admit that a former governor of New York was wrong; that the chief justice of that state was wrong, and that the present governor is right—admit all this, and your committee humbly submits, that the answer of the lieutenant governor of Virginia to the governor of New York, on this head, is conclusive. He says: "Is it true that the offence committed by Peter Johnson, Edward Smith and Isaac Gansey is not recognized as criminal by the universal law of all civilized countries? They are charged with *feloniously stealing* from John G. Colley, a citizen of this state, property which could not be worth less than six or seven hundred dollars. And I understand stealing to be recognized as a crime by all laws, human and divine." To this the governor of New York replies: "It is freely admitted, that the argument would be at an end, if it were as clear that one human being may be the property of another, as it is that stealing is a crime. On the contrary, however, I must insist, with perfect respect, that the general principle of civilized communities, is in harmony with that which prevails in this state, that men are not the subject of property, and of course that no such crime can exist in countries where that principle prevails, as the felonious stealing of a human being considered as property."

The governor of New York thus resolves the whole controversy into the question whether slavery can legally exist; and whether slaves are to be regarded as property by the northern states of this confederacy, in their intercourse with the southern. In this view of the subject, it assumes a consequence which it would not otherwise possess, and which demands of

Digitized by Google

the general assembly that it should speak in a manner that cannot be misunderstood.

That one human being may be the property of another, and that laws making him such, have been recognized by the universal consent of all civilized nations, is a proposition which cannot be denied. Your committee does not recollect a solitary civilized nation of modern times, which has not, within the nineteenth century, recognized slaves as property. Not to swell this report by an enumeration of other instances, your committee will refer to the case of Great Britain—a nation more fastidious, and your committee might add, more fanatical upon this subject than any of the other nations of the earth. It has only been within a few years that she has abolished slavery within her own jurisdiction; and in a late treaty with this country, she recognized them as property in the most emphatic manner, by making pecuniary satisfaction to the owners of such as were abducted by her forces during the late war. But what is still more to the purpose, every state in the Union, except Massachusetts, at the time of the adoption of the constitution, tolerated slavery, and admitted that one man could be the property of another. Indeed, it has only been within a few years that New York has abolished slavery within her own limits. Until that time, even by her own laws, one man might be the property of another. The states, not only in their separate individual capacity, recognized property in slaves, but in the most solemn manner, in their collective capacity, in the adoption of the federal constitution, did they declare that recognition. That constitution not only recognizes slavery, but it guaranties and protects the master's right of property in his slave. In proof of this, your committee need only refer to the third paragraph of the second section of the fourth article of the constitution. But for that clause, a slave who should escape from his master into a free state, would become free, and could not be reclaimed. Considering the facility of escape from many of the slave states to the so called free states, this provision was a most efficient protection to us in the enjoyment of our property. But your committee will not further press this view of the subject, as it is already familiar to the public mind.

It has been shown, that at the adoption of the constitution, slavery existed in every state which was a party to it, except one. It was recognized and guarantied by that constitution itself, which was the act of all the states. Is it competent for one party, by abolishing slavery thereafter within her own jurisdiction, so to effect in the other states, as to destroy it as a subject of theft, and thereby, without the consent of the other parties, change her duties under the constitution? Surely one party cannot, directly or indirectly, vary or impair the com-

Digitized by Google

pact without the consent of the other. Had this question arisen shortly after the adoption of the constitution, even upon the principles of the governor of New York, there could have been no difficulty as to his duties. Then slaves were property in New York; and the governor says, that if one man could be the property of another, and thus become the subject of theft, the argument is at an end. Was it competent for New York, by any act of her own, without the consent of the other parties, to modify or change her duties under the compact, and to relieve herself from the discharge of those duties under which she was acknowledgedly placed by its provisions, at the time of its adoption? Can such a proposition be insisted on?

In this connexion it is proper to inquire what laws existed in Virginia, in relation to the stealing of slaves, at the adoption of the federal constitution. The same laws which are now in force in Virginia, were in force then. Our statute contains two provisions upon this subject. The first is in these words: "If any person or persons shall hereafter be guilty of stealing any negro or mulatto slave whatever, and be thereof lawfully convicted, whether the said slave or slaves so stolen shall have been taken out of or from the actual or immediate possession of the owner or owners of such slave or slaves, or shall have been elsewhere found, he or they shall be adjudged guilty of felony, and shall undergo a confinement in the penitentiary, for a period of not less than three nor more than eight years." (1 *R. C., page* 427.) The other provision of our statute is in these words: "Whosoever shall hereafter carry or cause to be carried, any slave or slaves out of this commonwealth, or shall carry or cause to be carried, any slave or slaves out of any county or corporation within this commonwealth, into any other county or corporation within the same, without the consent of the owner or owners of such slave or slaves, or of the guardian of such owner or owners, if he, she or they be a minor or minors, and with the intention to defraud or deprive such owner or owners of such slave or slaves, shall be adjudged guilty of felony, and subject to prosecution as in other cases of felony, and upon conviction thereof, shall be punished by fine not less than one hundred nor more than five hundred dollars, and shall also be imprisoned in the jail or penitentiary house for a period not less than two nor more than four years; which fine and imprisonment shall be fixed and ascertained by a jury." In the next section of the act, it further enacted, "That not only all those who shall willingly and designedly carry away slaves as aforesaid, but all masters of vessels who, having a slave or slaves on board their vessel, shall sail beyond the limits of any county, with such slave or slaves on board, shall be considered as carrying off or removing such slave or

Digitized by Google

slaves, within the true intent and meaning of this act." (1 *R. C.*, 428.) This statute was passed as early as 1753; and the only change which has been made in it, consists in the substitution in 1799, of confinement in the penitentiary, in place of "death without benefit of clergy," as the punishment for the felony created by it. Let it not be said that these laws are harsh. They are less sanguinary than they were at the adoption of the constitution. But if they be so, citizens of other states need not come, unless they choose, into Virginia; and if they do, they need not violate her laws and incur their penalties.

Thus stood the matter at the adoption of the federal constitution. Did Virginia and the other southern states understand that the northern states, by abolishing slavery within their limits, would take the felony of stealing a slave out of the operation of the second section of the fourth article of the constitution? If they had so understood it, would they have agreed to the adoption of the constitution?

If there was one feeling, more than any other, which marked the conduct of southern men at the time of the adoption of the federal constitution, it was extreme jealousy and distrust of the northern and eastern sections of this union on the subject of slavery. The proceedings of each of the conventions, south of the Potomac, which adopted the constitution, demonstrate this too clearly for doubt. All must admit, that no constitution would have been acceded to by a solitary southern state, which did not contain the amplest guaranty of property in slaves. The caution which our southern statesmen manifested on this subject was set down, at the time, to the score of idle fears and ungenerous jealousy. But among the numerous instances in which they discovered a sagacity and wisdom almost more than human, not one was more remarkable than this. With a sagacity which partook of prēscience, they descried the dangers with which we are at present environed, and they provided against them by provisions in the constitution itself, as far as they could be relied upon, and by a reservation of all the means of protection which unimpaired sovereignty can afford, when these should prove ineffectual.

The southern states demanded that a clause should be inserted in the constitution, providing for the capture of fugitive slaves. Could men who required a provision of that sort, have been guilty of the inconsistency and absurdity of agreeing to a constitution under which any one of the distrusted states could produce a condition of things, in which, although there would be an obligation to send back to his bondage, the slave who had fled from his master to gain his liberty, yet the felon who should steal him from this very master, might go acquit? Such fatuity might be looked for in madmen, but not in a body

Digitized by Google

of statesmen, unequalled in the history of the world for their cautious wisdom.

In the opinion of your committee, if the construction contended for by the governor of New York, was justified by the letter of the constitution, (as it clearly is not,) it would yet be a palpable violation of its spirit, and render that constitution *a fraud* upon a portion of the parties to it.

The positions of the governor of New York, when carried to their legitimate results, lead to consequences of a most frightful character, and which, as it seems to your committee, could not have been duly weighed by him. The governor of New York says, it is no offence to steal a slave, because one man cannot be the property of another, and cannot, therefore, be the subject of theft. If, for these reasons, it be no offence to steal a slave and carry him to New York, it would be none to steal him and carry him to Louisiana. Surely, in such a case, it would make no difference whether the thief steered north or south after committing his robbery. The consequence is, if a citizen of New York were to come into this state, inveigle a cargo of our slaves on board his vessel, under the pretext that he meant to take them to some "land of liberty," and *should* carry them to Louisiana and sell them in the New Orleans market, and should thereafter take refuge in New York, he would be free from arrest, and could not be made to expiate his crime. And without wishing to make any unjustifiable attack upon the citizens of any state of this Union, your committee would be wanting in candor, if they expressed a doubt that such a case, if the course of the governor of New York should be persevered in, would be of probable and frequent occurrence. There are bad men in every country who will commit offences when they can profit by it, and do it with impunity. But what is still more probable, (if the course of the governor of New York be acquiesced in,) is, that those deluded enthusiasts at the north, who, in pursuit of something they know not what, are spending thousands and thousands in efforts which they must see, if they be not blinder than any one, except a fanatic ever yet was, can never accomplish their object, will attempt to make those efforts practically efficient, by coming into our state and making it a labor of *virtue* to *steal* our slaves and convey them to more galling bondage than they now suffer, in the northern states.

Suppose one of those northern fanatics, who believing that the shedding of the blood of the wives and children of southern slaveholders would be but an acceptable offering in the eyes of God, should come among us, and after inciting our slaves to insurrection, and aiding and abetting them in it, should escape into New York, consistency would compel the governor of New York to refuse to deliver him up for trial and punishment.

Digitized by Google

He would say one man cannot be the property of another. These negroes, therefore, were held in illegal bondage; and the person who aided them in their effort to throw it off only performed a meritorious action.

Your committee do not wish by these remarks, to excite idle fears. This general assembly do not represent a timid people. But the abhorrent consequences flowing from the positions of the governor of New York, if carried to their legitimate results, tend to demonstrate the unsoundness of these positions themselves.

The most painful circumstance atending this controversy with a sister state, originates in the conviction which forces itself upon the mind of your committee, that the executive of New York has taken his extraordinary course, either under the influence of the fanatical feelings of the northern abolitionists, or with a view of conciliating those enemies of the domestic tranquility of this country. The distinctions of the governor of New York, are impracticable, and will rarely be applicable to any other case than one similar to that under consideration. The common law of England is the law in every state of the Union except one. The statutory crimes and felonies, in them all, are very nearly of the same character. There is scarcely an article, except slaves, which is property in one state, that is not property, and the subject of theft, in all. The untenable distinction, therefore, of the executive of New York, seems to have been taken with a single view of protecting the depredators upon our slave property; a species of property to which we adhere with a stronger tenacity than such as originates only in a calculation of its value.

Your committee lament the course of the executive of New York, and they trust that it will not be persevered in. They lament it not more on acoount of the interests of this state, than of New York—they lament it, because it brings the existence of this Union into jeopardy.

It is the pride and glory of our country, to be an asylum for the persecuted and oppressed of every nation and every clime. But should any state of this Union erect herself into a place of refuge for the thieves and robbers, who might escape from the offended justice of any of her sister states, she would sully that glory and render herself unworthy of that sisterhood which should be her pride. And the country may rest assured that in such an event, Virginia will take proper measures to extricate herself from such an unholy alliance!

Your committee now approach the only part of their duty, the discharge of which has given them any difficulty. What is the proper remedy in this case? The means of redress and protection which are within the reach of Virginia, are ample. The only difficulty which your committee has had, has been in

Digitized by Google

selecting one consistent with the relations imposed upon the members of this confederacy by the constitution. A variety of remedies have been proposed:

First. An appeal to the supreme court of the United States.

Second. An appeal to the congress of the United States, so to amend the statutes heretofore passed upon that subject, as to authorize the demand in the cases contemplated to be made upon the circuit judge of the United States, having jurisdiction in the state where the fugitive may be found.

Third. The appointment of inspectors to inspect all vessels trading to the north, to see that no slaves are secreted.

Fourth. The requirement from all citizens of New York coming into Virginia, security for their good behavior.

Fifth. A solemn appeal to New York herself, to redress our wrong, and to do us justice.

There are objections to all these remedies, but something to recommend most of them.

1st. An appeal to the supreme court, in the opinion of your committee, is entirely out of the question.

In the first place, in the opinion of your committee, the supreme court has no jurisdiction. The case is in the nature of a *national* demand made by one state upon another; and not *such* a "case in law and equity," as comes within the provision of the constitution. There is nothing of "*meum et tuum*" involved in the controversy. The question cannot conveniently "assume a legal form for forensic litigation and judicial decision." "By extending the judicial power to all *causes in law and equity*, the constitution has never been understood to confer on that department any political power whatever." (*Chief Justice Marshall.*) Besides this, the remedy would be ineffectual. If successful in this case, even, it would afford no protection for the future. But would it be successful in this case? Your committee cannot express the belief that it would. As a mere judicial opinion of the duties of the executive of New York, most probably it would be unheeded. We have seen the governor of New York disregarding the decisions of the supreme court of his own state; and it is not probable that he would show a greater deference for decisions of the federal judiciary. Besides, how could the judgment of the court be enforced? Your committee cannot recommend any course which might, and probably would, bring the authorities of the federal government and of the states into collision. But above all, the wish of Virginia is that New York should herself, freely and magnanimously do us justice. We would prize but little that justice which she should be forced reluctantly to yield us.

2d. To the second remedy proposed, your committee has also decided objections, and it cannot withhold the expression

Digitized by Google

of its regret that Georgia, with whom Virginia will make common cause, should recommend it.

In the first place, the surrender of a fugitive from justice is properly an executive duty. The executive is at the head of the civil and military authority. It holds and directs the force of the state. When, therefore, a surrender is to be made, the executive can best discharge the duty. Besides, it being at the head of the state, it is especially its province to determine in what case a citizen is to be delivered up to be removed to another state for trial. If any change of the law is to take place upon this subject, it must be a general one; and your committee is adverse to a change by which the decision of the question whether the citizen of a state shall be surrendered as a fugitive from justice, shall be transferred from the chief civil and military officer of the state, to the federal judiciary. In a case involving the liberty of the citizen, the supreme authority *of the state* is the proper tribunal for its decision. In addition to this, it might be urged with much force, that the provision of the constitution itself, contemplated, that the duty of surrendering a fugitive from justice should be discharged by the executive of the state to which he has fled. It is true, the provision is silent as to the tribunal upon which the demand is made; but it provides that the fugitive is to be delivered up "on the demand of the executive authority of the state from which he fled;" and the inference is strong, that the clause contemplates that the demand is not only to be made by the executive of the state from which the fugitive had fled, but to be made upon the executive of the state in which he had taken refuge. There was as great or greater reason for requiring that the demand should be made upon, as by, the executive. And the act of congress passed shortly after the adoption of the constitution, is in accordance with this view.

Besides, the change proposed, would add another to the list of cases, already too long, in which the state and federal authorities may come into collision. There may be cases, where no state would permit a citizen to be surrendered, as a fugitive from justice, by a federal judiciary. And in some of them, resistance would be interposed, when it would never have been thought of if the surrender had been ordered by the state authority. And in the opinion of your committee, no practical result would be produced by such a change; for in all exciting cases the state courts will be called upon in any event to adjudge the case finally.

But above all, your committee is averse to sending this subject into congress, and thus give the abolitionists the long-wished for opportunity of denouncing in the national legislature an institution of such peculiar character and paramount importance, and of franking their incendiary effusions to the four

Digitized by Google

quarters of the Union. We have always denied that slavery was a fit subject of congressional discussion, and your committee cannot recommend any course which will bring that subject into debate there. And your committee is strengthened in this view by witnessing the exultation which the abolitionists manifest at the prospect of this subject being introduced by ourselves in this form.

3d. The proposition to appoint inspectors. This has much to recommend it. In the first place, the remedy is specific to the wrong. It is clear of all constitutional difficulty. The principle upon which such a law would be founded has been frequently recognized. In point of time, first in the recognition of the validity of quarantine regulations, and last in the law punishing the transmission of incendiary publications by mail. But it is liable to objections. To bring it, perhaps, within the constitution, it would have to be general. In such an event the law, which would be harrassing and vexatious, would operate equally upon those who had wronged us, and those who had not. Besides, it would be difficult to enforce it in an effectual manner. A vessel might be inspected one hour, and the next, take a slave on board and be off. This would be the case particularly in the navigation of our long rivers.

4th. The requirement of security for good behavior from the citizens of New York. This would be perfectly just in itself, and might produce desirable results. But your committee will not recommend it at this time, as it is liable to many objections. In the first place its constitutionality might be questioned. Although it is true, that the constitution is a compact between the states; and although it is also true, that when such a compact is broken by one party, it ceases to be binding on the rest, yet we ought not *now* to take this ground—we may be driven to it in the end. But your committee will not take it for granted that New York will persevere in her unconstitutional course. Let us give her every opportunity to retrace her steps, and not render an amicable adjustment of our difficulties impossible, by acting as if we considered the constitution no longer binding upon us, because it had been broken by her.

5th. A solemn appeal to New York to review her course and render us justice. The objection to this is, that New York having in one instance, at least, before this, failed to discharge her duties as a member of this Union, in taking effectual means to protect us from the attacks of her citizens upon our domestic institutions, in a manner to meet our just expectations, has deprived herself of the right to be met in the amicable spirit which this course would indicate. But the governor of New York, in his late annual message, has brought this

Digitized by Google

whole subject to the attention of the legislature of that state; and your committee is unwilling to believe, that the state, in its sovereign capacity, will sanction the course of her executive.

It is true, that the governor of New York takes the ground, that the subject is one that appertains to the executive department. He says: "The duties of that department, in such cases, are prescribed by the constitution of the United States, and not by the constitution and laws of New York." Nevertheless, as he has brought the matter to the attention of the legislature, and expressed a deference for it, the probability is, that he would acquiesce in any disposition which it should make of the subject. And your committee is fortified in this opinion, by the fact that the governor of New York, in his correspondence with the executive of this state, declared "that as an executive officer of that state, he was bound to regard, with very great deference, and the argument must be conclusive, which should prevail with him, to act in opposition to a legislative exposition of his duties."

Your committee will not discuss the question whether this is a matter about which the state legislatures can act at all. There are many difficult questions involved in it, which need not be solved. It may be insisted, that this is a question arising under the constitution of the United States, with which the state legislatures have nothing to do. On the other hand, it may be contended that the state legislatures possess *the exclusive* right to legislate upon this subject, and that the provision of the constitution merely imposes a duty upon the states, but vests *no power* in the federal government, or any department of it, except the *judicial* power of declaring and enforcing the rights secured by the constitution. The third ground might be taken, that the power of legislation was concurrent in congress and the state legislatures. Your committee will not undertake to decide these questions; but it cannot bring itself to doubt but that the state legislatures may act in a manner, not contravening the constitution and laws of the United States, to bind the executive of the state.

Let it not be said, that by conceding the right of the state government to legislate upon this subject, we concede a power which may be exercised in a manner to impair our rights, under the constitution and laws of the United States. It does not follow, that because the state legislature may co-operate in securing our rights under the constitution and laws of the United States, it may legislate in derogation of them.

For these reasons, your committee are disposed to await the action of the legislature of New York; and they are the more disposed to this course, as there is no occasion for haste. The slave which was stolen in this instance, has been recovered.

Digitized by Google

No private justice is delayed. Nothing is involved in the controversy but a principle; an important one, it is true, but one which will not be jeoparded by the delay proposed. In the mean time, your committee recommends that the executive of this state be requested to renew his correspondence with the governor of New York; to apprise him of the importance we attach to the subject; to communicate our proceedings to him, and respectfully request that he will bring those proceedings to the attention of the legislature of his state.

The subject which your committee have had under consideration, is one in which the whole of the slaveholding states are equally interested with Virginia. Your committee, therefore, recommend that the governor of this state be requested to open a correspondence with the executive of each of these states, informing them of the importance which Virginia attaches to this subject; communicating our proceedings in relation to it, and asking their co-operation in all proper measures of redress, which, in the event that New York shall decline to do us justice, we may be called upon to adopt.

The people of Virginia have not witnessed the controversy, somewhat similar to this, in which Georgia is involved with *Maine*, without taking in it the deepest interest. Virginia is prepared to make common cause with Georgia, or any other slaveholding state, in a similar controversy.

It is true that the grounds taken by the governor of Maine, are much less exceptionable than those assumed by the executive of New York; but, in the opinion of your committee, not less untenable. Your committee will not extend this report to establish by argument, a proposition which has already been demonstrated by others, and which will not be controverted by any unprejudiced mind. But the very variety of indefensible expedients resorted to by the authorities of some of the northern states, to avoid the discharge of their constitutional duties, goes the more clearly to demonstrate the deep rooted hostility of those states to our domestic institutions, our peace and prosperity.

The patience of the south has already been too severely taxed, and we once for all, without bravado or threat, in the language of a distinguished senator of New York, warn the non-slaveholding states, "that they may find, when it is too late, that the patience of the south, however well founded upon principle, from repeated aggressions, will become exhausted."

Your committee do not apprehend that the cause of the moderation which they recommend, will be misunderstood. We are too clearly right to be rash. Fortunately, Virginia's character for chivalry is not so doubtful that she must be rash in order to seem to be firm.

Your committee cannot close this report without expressing

Digitized by Google

in high terms, its cordial approbation of the conduct of the executive of Virginia, in relation to this controversy with New York.

Your committee recommend the adoption of the following resolutions:

Resolved, That the reasons assigned by the governor of New York, for his refusal to surrender Peter Johnson, Edward Smith and Isaac Gansey, as fugitives from justice, upon the demand of the executive of this state, are wholly unsatisfactory; and that that refusal is a palpable and dangerous violation of the constitution and laws of the United States.

Resolved, That the course pursued by the executive of New York, cannot be acquiesced in, and if sanctioned by that state, and persisted in, it will become the solemn duty of Virginia, to adopt the most decisive and efficient measures for the protection of the property of her citizens, and the maintenance of rights which she cannot, and will not, under any circumstances, surrender or abandon.

Resolved, That the governor of this state be authorized and requested to renew his correspondence with the executive of New York, requesting that that functionary will review the grounds taken by him; and that he will urge the consideration of the subject upon the legislature of his state.

Resolved, That the governor of Virginia be requested to open a correspondence with the executive of each of the slave-holding states, requesting their co-operation in any necessary and proper measure of redress which Virginia may be forced to adopt.

Resolved, That the governor of Virginia be requested to forward copies of these proceedings to the executive of each state of this Union, with the request that they be laid before their respective legislatures.

Agreed to by the house of delegates, February 28, 1840.

GEORGE W. MUNFORD, *C. H. D.*

Agreed to by the senate, March 17, 1840.

A. HANSFORD, *C. S.*

Report of the commissioners to provide for the sale of certain lands to the settlers thereon, and for other purposes.

To WILLIAM WOODBRIDGE, *Governor of Michigan:*

The undersigned, commissioners appointed under the "Act to provide for the sale of certain lands to the settlers thereon, and for other purposes," approved March 25, 1840, respectfully report:

That on the first Monday in May last, they commenced the examination of claimants under the law, at the village of Niles, and after an examination of all who exhibited claims, we pro-

Digitized by Google

ceeded to an examination and appraisal of the premises; the result of which was, that in the Kalamazoo land district, we allowed thirty claims and rejected sixteen. Of the claims allowed on the Niles reserve, twenty-seven were on university land, including four thousand one hundred and twenty-three and eighty-three hundredths acres; which was appraised at twenty-six thousand four hundred and ninety-two dollars and seventy-one cents, or at an average valuation of six dollars and forty-two cents per acre.

On the same reserve, five claims were allowed on state building land, including five hundred and forty-four and sixty-six hundredths acres; which was appraised at five thousand five hundred and thirty-six dollars and eighty-three cents, or at an average valuation of ten dollars per acre.

On Nottawasseppee reserve, six claims were allowed on university land, including nine hundred and thirty-seven and thirty-five hundredths acres, which was appraised at six thousand three hundred and seventy-eight dollars and eighty cents, or at an average valuation of six dollars and eighty cents per acre.

On the first Monday of June last, we met at the village of Grand Rapids, in the county of Kent, and commenced the examination of claimants in the Ionia land district. After an examination of all the claimants in that district, we proceeded to the examination and appraisal of the premises; the result of which was, that thirteen claims were allowed and fifteen rejected.

Of the claims allowed in this district, nine were on university land, including one thousand one hundred and twenty-six and seventy-three hundredths acres; which was appraised at eight thousand five hundred six dollars eleven cents, or at an average valuation of seven dollars and fifty-five cents per acre.

Four claims in this district were allowed on state building land, including four hundred and one acres; which was appraised at four thousand two hundred and seventy dollars and forty-five cents, or at an average valuation of five dollars and sixty-six cents per acre.

Amount of university lands allowed in Kalamazoo land district,	$5,061\frac{18}{100}$	
" " Ionia " "	$1,126\frac{73}{100}$	
	$6,187\frac{91}{100}$	
Amounting in all to		$41,377 62
Amount of state building lands allowed in Kalamazoo land district,	$544\frac{66}{100}$	
Carried forward,	$544\frac{66}{100}$	$41,377 62

Digitized by Google

Brought forward,	544 66/100	$41,377 62
Amount of state building lands allowed in Ionia land district,	401	
	945 66/100	
Amounting in all to		7,817 28
		$49,194 90

A difficulty arose in the Ionia land district, growing out of a difference of opinion between the settlers and commissioners, as to what constituted a "legal subdivision" of the land; but by reference to the officers of the land office, the question was settled agreeably to the original views of the commissioners, which so materially changed the nature of several claims, as to deprive the claimants of any right under the law, which might have been granted, had the question been settled agreeably to their understanding.

Several applications were made by settlers, who, in the opinion of the commissioners, were as equitably entitled to their claims as any whose claims were allowed, but who were deprived of them by some legal impediment. Some had purchased of former occupants, and paid a valuable consideration for their possession and improvements, but did not become "settlers" or residents upon the land, until subsequent to its location by the state.

When such purchases and settlements were made in good faith, and without any knowledge that the agents of the state had or intended to enter the land, the occupants, in the opinion of the commissioners, are as well deserving of legislative consideration, as any who come within the letter and meaning of the law.

Several applications were made by those whose dwelling and improvements were separated by a line of lots, they were not residents on the land claimed, and consequently could not come within the meaning of the law. We are of opinion that such cases are deserving of legislative consideration, and that the same rights be granted to them that have been granted to others.

We were much disappointed in the quality and value of the university and state lands; much of it is of an inferior quality, and, in our opinion, its location by the state agent, was extremely injudicious. And we must suppose that either he was ignorant of its quality and trusted to the representations of others, or that he must have made some mistake in his return to the land office. Our appraisals of the land varied from two to twenty dollars per acre.

We had no other standard upon which to fix a value for this

Digitized by Google

land, than the general valuation of similar lands through those sections of the state. This we endeavored to ascertain by every means within our reach, and adopted the highest valuation as our standard.

Respectfully, your obedient servants,

C. N. ORMSBY,
G. W. JERMAIN,
RICHARD BUTLER,
Commissioners.

December 23, 1840.

The statements required by the law to be made by the commissioners, and transmitted to the clerks of the counties of Berrien and Kent, and to the auditor general and superintendent of public instruction, respectively, were duly made and transmitted to those respective officers agreeable to the requirements of the law, immediately after the examinations and determinations of the commissioners were concluded. (Which fact was inadvertently omitted to be stated in the foregoing report.)

G. W. JERMAIN,
RICHARD BUTLER,
Commissioners.

Report of Commissioners to locate the seat of justice of Branch county, 1840.

Know all men by these presents, that whereas, we, the undersigned, a majority of the commissioners, having been appointed by his excellency the governor of the state of Michigan, commissioners to locate the seat of justice in and for the county of Branch, in said state of Michigan, after having been first duly sworn, and having proceeded to the performance of the duties assigned to us, by the examination of various places and points in said county, on the 11th day of May, A. D. 1840, and having all the arguments brought forward by the inhabitants of said county, for and against certain points, for the location, have finally come to the conclusion, and do finally determine, adjudge and agree to establish said county seat of Branch county, at Branch, between section thirty (30) and nineteen, (19,) in township six, (6,) range six (6) west, eighty rods from the town line eastwardly, it being at the same place or spot, and under the same restrictions and conditions that the same was heretofore located by commissioners O'Keeffe, Rowland and Disbrow.

And that our decision was made up without fear, favor or affection, we being both strangers to the people of the county,

Digitized by Google

and even to each other; and our decision cannot be questioned by any disinterested or impartial person, but what it was made for the good of the county eventually.

And we would further state, that the following are some of the most permanent reasons that brought us to this conclusion:

1. That it is the nearest point to the geographical centre of said county, being only three-fourths of one mile from said centre.

2. That the water power at Branch is far better, and capable of being used more extensively than at any other point shown us.

3. That from the situation and elevation of the place and the country around it, together with the quality of the soil at Branch, we considered, and even it was admitted to us by all hands that the health of the place was far better than at Coldwater.

4. That it was stated to us by the people of Coldwater and Branch, that that part of the county immediately in the vicinity of Branch was equally as good as any other part of said county, and as susceptible of being improved by the farmers as any other part of the county, and, as we judged, would very soon be the best and most populated and richest part of the county.

5. That we were satisfied that improper means had been used to get the people to sign a petition for the removal of said county seat.

6. That it was admitted by at least one, and we think two, of the county commissioners, both before and after our decision was known, that the location at Branch would meet the views of a majority of the citizens of said county, notwithstanding the petition that had been circulated through the county for its removal.

7. That it would not, in our opinion, be right and just to all men, for us to exercise our judgment to the ruin of one and the advantage of another, unless there were some very substantial and undoubted reason for so doing.

8. And that the only substantial reason, in our opinion, that was urged, or could be urged, in favor of its removal to Coldwater, was because the turnpike road run through the village of Coldwater, and not through the village of Branch, and at present it is more populated and better prepared to accommodate those that necessarily have to attend courts.

Given under our hands and seals, this twelfth day of May, 1840.

WILLIAM STODDARD,
SAMUEL SHERWOOD,
Commissioners.

Digitized by Google

Minority report.

His excellency WILLIAM WOODBRIDGE, *Governor of Michigan:*

The undersigned, one of the commissioners appointed by the governor, by and with the advice and consent of the senate, under the act of the legislature, entitled "An act to vacate the seat of justice of the county of Branch, and to establish the same," approved March 16, 1840, having come to a different conclusion in the premises from that of a majority of the commissioners appointed under said act, which seems to contemplate the unanimous action of the commissioners in order to effect the design of the law, begs leave to submit his views, and the reasons therefor, in a separate report.

The commissioners appointed under said act, met at the village of Branch, on the eleventh day of May last, pursuant to their own appointment; and provision having been made by the citizens of the county for defraying their expenses, the commissioners proceeded to examine such places as were pointed out to them as being suitable for the location of the seat of justice for the county. After having made such examination, and having heard such arguments as were offered in favor of the different sites proposed, two of the commissioners were of opinion that the central position of the village of Branch, and the water power in its vicinity, offered advantages of convenience and fitness to the interest of the inhabitants of the county, superior to any other site proposed, and were, therefore, in favor of retaining the present location of the county seat, which is at the village of Branch.

In this opinion and result, the undersigned could not concur. He is decidedly in favor of securing to the greatest number of persons, the largest convenience and accommodation; but for this precise reason, he is satisfied that the village of Branch should not be the point selected.

However spacious in theory the idea of a geographical centre may be, for the accommodation of the citizens of a county, it is found often practically delusive. Nature itself is frequently adverse to it, and the location of the great roads and thoroughfares through the state, commonly changes the centre of business and population, and diverts it from the geographical centre of the county.

The undersigned is of the opinion, that in the selection of a county seat, some regard should be had to the convenience and interests of the citizens of other portions of the county, holding property or having business in the county. It often becomes desirable and necessary for persons traveling through the state, to examine the files and records of the counties through which they pass; and many other considerations of convenience and advantage to the traveler, and to the officers of the county,

Digitized by Google

would dictate the policy of locating the offices on main roads and thoroughfares, provided it can be done without too great a sacrifice of other and superior interest.

It is to be observed that the only advantages offered by the village of Branch, are its central position, and its supposed preponderance of hydraulic power.

The village is situated within three-fourths of a mile of the geographical centre, and contains a population of about one hundred and fifty souls. Near the village is erected a saw-mill, and a small flour mill, on the west branch of the Coldwater river, a stream valuable for hydraulic purposes; and a mile and a half, or two miles, south of the village, a saw-mill has been erected, and one or two more mills, it is said, are soon to be built on the same stream.

The face of the country in the vicinity of Branch, is sufficiently undulating to render it agreeable and healthy when the heavy timber shall be removed. This village has the disadvantage of lying off from the main thoroughfare through the county, (the Chicago road,) about three-fourths of a mile south, causing a serious inconvenience to travelers whose business requires them to visit the public offices. Other sites were examined by the commissioners, some of which were found favorable, and, in the opinion of the undersigned commissioner, were superior to Branch in some respects. But the only one which, in the opinion of all the commissioners, presented a strong claim to selection, was the village of Coldwater. This village, which the undersigned considers decidedly the most eligible spot for the county seat, is situated on the Coldwater prairie, through the centre of which passes the Chicago road above mentioned, and is about two and a half miles from the centre of the county, a distance too inconsiderable to have any weight even if a central situation was important. It is tastefully built, and contains a population of eight hundred or a thousand souls, by estimation. The south branch of the Coldwater river runs near the village, and has in full operation upon it, a large saw mill and an extensive flouring mill, at which most of the flouring of the county is now done. There are several large and commodious public houses erected, and almost the entire mercantile and mechanical business of the county is here carried on. The preponderance of population and business at Coldwater, seems to establish its claim by nature and enterprise, to be the central point of interest and accommodation in the county. Add to this the fact, that from petitions signed by the citizens of every township in the county and exhibited to the commissioners, it appeared that about two-thirds of all the inhabitants were in favor of the location of the county seat at Coldwater. And the undersigned believes he will

Digitized by Google

not be deemed singular in his non-concurrence with his colleagues, in rejecting claims thus established.

The words of the act, indeed, give an unlimited discretion to the commissioners in regard to their selection, but the undersigned did not deem himself at liberty entirely to disregard the opinions and wishes of so large a majority of intelligent men, upon a subject which so deeply affected their personal convenience and interest; expressed, too, with such unanimity from every part of the county, after the subject had been agitated amongst them for years. It is believed that the soil of Branch county, throughout, is of a very uniform quality; and the farming population may be presumed to be nearly equally distributed, and will so continue to be, thereby giving strong credit to the inference that a location of the public buildings, at a point now deemed most convenient, will continue to subserve the best interests of the people of the county. The undersigned feels that he need not suggest the necessity of making a permanent location of the county seat soon, as it is manifest that the existing buildings at Branch are unsafe for the records of the county, and inconvenient for the purposes for which they are used. The undersigned is of the opinion, that the *only* way to settle this question satisfactorily to the great body of the people of the county, who have for the last eight years been annually petioning the legislature for a removal of the county seat, will be for the legislature to locate the same at the village of Coldwater; and should the considerations here presented, be considered of sufficient weight, he would respectfully recommend that such a course should be adopted.

All of which is respectfully submitted.

C. K. GREEN.

Report of H. R. Schoolcraft.

ACTING SUPERINTENDENCY INDIAN AFFAIRS,
Detroit, October 30, 1840.

His excellency WILLIAM WOODBRIDGE, *Governor of Michigan:*

SIR—I have the honor to inclose for your official information, so much of my annual report to the bureau of Indian affairs at Washington, for the year ending September 30, 1840, as relates to the relinquishment of the license laws over the territory of the Chippewas and Ottawas residing on that part of the public lands, within this state, which was ceded by those tribes to the United States by the treaty of March 28, 1836, together with printed copies of the act of Congress "to regulate trade and intercourse with the Indian tribes and to pre-

Digitized by Google

serve peace on the frontiers," and the act "to provide for the organization of the department of Indian affairs," passed June 30, 1834. A comparison of these acts, with the report transmittted, will indicate the particular sections of the first named act, which are dropped, as contradistinguished from those that still remain in force, and will be maintained by the agents.

The district of country, to which reference is had, comprehends all that portion of peninsula which lies west of Thunder bay, and north of Grand river, extending to the straits of Mackinac, together with the tongue of land situated between Lakes Huron, Michigan and Superior, from the latitude of Point Detour, on the straits of Ste Marie, to the mouth of the Ichisibee or Chocolate river of Lake Superior. Extensive portions of this tract are still, in the ordinary acceptation of the term, "an Indian country," but as it has been determined that no convictions can be had, for violations of the intercourse act relative to trade therein, it has been decided that licenses will not be hereafter granted by the agents for such trade, east of the point indicated.

In this local relinquishment, to the state authorities, of a branch of duties pertaining to Indian affairs, which had for its object the protection of the tribes by interposing legal penalties against the introduction of ardent spirits, the barter in all other articles except "furs and peltries, and other provisions of a beneficial character, it is deemed proper to bring the subject definitely to your notice, for such action, if any, as it may be thought to merit. And it will not, I apprehend, be considered misplaced, to subjoin a few general remarks.

Taking the year 1796, (the date of the surrender of the lake posts,) as the period of reference, the United States government has exercised exclusive jurisdiction over this, with other portions of the Indian country, during forty-six years. Prior to this time, dating from the era of the revolution, Indian affairs constituted, almost exclusively, a branch of executive duty. Congress first interposed a general act regulating trade and intercourse with the tribes in 1802. Long before the revision and rēenactment of this law, which was made in 1834, many of its provisions had become obsolete, or of no effect, from inherent defects in adopting a new system—from important changes in the relative position and numbers of the white and Indian population, and the great increase of the one, and decrease of the other. And it is conceived, that on the revision of the act, its original features, good and bad, were followed with a scope more limited, and deriving less aid from practical experience in the operation of the law, than the subject obviously called for, or admitted—the effect of which has been to prolong the barbarous period of Indian rule. It is not designed to enter into any examination of the particular fea-

Digitized by Google

tures of this act, to which reference has been chiefly made; to justify the observation that any local legislation, which may be adopted, will be found, in my opinion, to derive its chief efficacy from clearly and plainly limiting and defining the offence or offences, as well as the power to ascertain and punish them, which may be confided to the civil magistrates.

That the Indian tribes of Michigan, cannot, under the operation of the constitution, become citizens of the state, by any measure of civilization which they may reach, or any advances they may make in christianity or the arts, appears to have been decided by the framers of that instrument, from a reference to its phraseology. While it is a point on which opinions are nearly as well agreed, that they cannot long remain within the limits of the state, in prosperity, as whole tribes or fragments of tribes, without that privilege. It is known to you, sir, from the documentary history of the times, that to obviate this difficulty, which is of a general character, the government of the United States, about eighteen or twenty years ago, brought forward the plan of a general removal of the tribes to a territory west of the Mississippi, where they might not suffer the same embarrassments to the development of their character, and might grow up together in the bonds of a common people. This policy has been pursued through the last five presidential epochs of the administration of the general government, and is at this time, in the process of being carried forward. Parts of the report above mentioned, will indicate how far the plan has been adopted by the Michigan Indians, and also the objections it has encountered from them. Whether the Chippewas and Ottawas of the upper lakes are to embrace it, contrary to their present feelings, and join the large number of aboriginal tribes, both kindred and non-affiliated, who are already in the Indian territory, south of the Missouri river, is a point which I do not purpose to discuss. But I beg leave to remark, that while they continue in Michigan, they commend themselves by their numbers and character, to the favorable notice of its legislature and people, and it is, moreover, conceived to be the duty of an intelligent and free people, who mean to treat them well, and at the same time to do justice to themselves and their posterity, to lay down by a timely forecast, the policy they are to pursue respecting them. The subject is one that brings with it appropriate considerations and reflections, but there needs not, I am sure, any thing from me, in this connection, (conversant as you have yourself been with the subject by your official position for a quarter of a century on the frontiers,) to inspire correct sentiments or direct sound public policy.

As having a bearing on the question of a future permanent residence for these tribes, I have the honor further to inclose

Digitized by Google

a copy of a memorial to the president of the United States, adopted by fifty-three of their principal chiefs, in a public council convened at the Mackinac agency on the 14th July, 1836. This memorial was transmitted to the house of representatives by Mr. Butler, secretary of war, January 9, 1837, and printed by the committee on public lands; but resulted in no definite action.

I am, sir, with much respect,
Your ob't servant,
HENRY R. SCHOOLCRAFT,
Act'g Sup't of Indian Affairs.

—

(Copy.)

To the President of the United States:

The undersigned, chiefs of the Chippewa and Ottawa tribes, who entered into treaty with the United States on the 28th March, 1836, for the sale of a large portion of their lands in Michigan, having this day acceded to the amendments made by the senate to the said treaty, which requires a cession of reservations at the expiration of five years, respectfully solicit that such aid may be afforded them, as may, at the expiration of said term, enable them to locate themselves among their relations, the Chippewas west of Lake Superior, and also to remove there at the earliest possible time.

The Chippewas of that remote northern quarter, are separated from us, by an average distance of about 900 miles; all of which is, however, occupied by Chippewas. They hold separate government over their respective villages; have separate interests, and are excluded wholly from the benefits of the treaty, as they possessed no part of the land sold. It would be injustice to them to require or expect that they should assign for our residence a part of their country on the head waters of the Mississippi, without an adequate compensation for it. Besides which, they are in an impoverished situation, having barely the means of procuring their subsistence by hunting, from year to year.

The undersigned believe that by removing to that quarter, with our present incipient knowledge of the means by which white men live, and by adopting a system of planting, combined for the present with hunting, and by carrying with us the school, farming, and blacksmithing privileges, which we have provided in the treaty, our situation would become prosperous; and we think the location would become permanent, and not subject to disturbance from white settlers, because it is not probable that white men will ever desire to live higher north, on the waters of the Mississippi, than the good limestone lands extend. This point is not quite a day's journey

Digitized by Google

above St. Anthony's falls, where the lands are at first plains, and afterwards greatly intermixed with wet lands and forests of small growth, with dry sand ridges and lakes, which although unfavorable to dense and compact settlements, would afford the requisite advantages for scattered Indian villages and settlements. The small Indian corn can be raised in those latitudes, although the same latitudes in Lake Superior are forbidding to its growth.

The undersigned, while they accede to the government's wishes in regard to a southern location, so far as any of their number might be induced to go thither, had nevertheless directed their attention mainly to the sources of the Mississippi; and they took into consideration, in selling their lands, the value of such location, and the expense of removal to it.

They have no reason to suppose that it was the object of the senate to deprive them of any advantage the treaty provides for them.

They beg leave to present the subject for your consideration, and to suggest that instructions may be given by the government to negotiate with the Chippewas west of Lake Superior, and north of the mouth of Rum river, on the head waters of the Mississippi, for the purchase of a location for our future permanent residence.

Signed and witnessed at the agency of Michilimackinac, the 14th day of July, 1836.

KAWGAYOSH, his ⋈ mark,
and fifty others.

Witnesses:
Wm. Johnson, *U. S. interpreter*,
Francis Willett Shearman,
Alfred Schoolcraft,
John Clitz, *Captain Infantry*,
James W. Penrose, *Lieutenant 2d Infantry*,
Robert Stuart,
William M. Ferry,
William Mitchell,
John A. Drew,
William Lasley.

I certify that the above signatures have been affixed in my presence. HENRY R. SCHOOLCRAFT.

Extract from a report of H. R. Schoolcraft, Acting Superintendent of Indian affairs, made to the Indian Bureau at Washington, relative to the Ottawas and Chippewas, of the upper lakes.

ACTING SUPERINTENDENCY OF MICHIGAN,
Detroit, September 24, 1840.

SIR—In preparing my annual report, it will not be deemed

Digitized by Google

improper to call the attention to the condition in which a large proportion of the Indian population within this superintendency, is left, by the cession of their lands to the United States, and their coming, in consequence, under the exclusive operation of state laws, so far as respects the subject of trade and intercourse. This change in the geographical area, over which the Indian laws, relative to the subject, operate, took place *legally* at the time of the cession, as appears plainly from the phraseology of the intercourse act of 1834, but its practical effects were not for some few years felt among the tribes. The extent of the cession, and the remote position of parts of it, with relation to the actual settlements, led to but slight changes in either the location or pursuits of the Indians, for a time, during which the license laws were kept up, under instructions from the department, from the mere force of former custom, rather than any expectation on the part of the agents, that they could sustain suits for infractions of the act. The progress of survey and sale of the public lands in this quarter, and the gradual pressure of population up the peninsula, from Grand river northward, have brought about the period when it is no longer deemed practicable to attempt exercising the authority in question, over the ceded portion of the upper lake country. And the tribes must, therefore, abide such legal enactments, or such want of them, touching their internal affairs, as may result from local state legislation. So far as I know and believe, there is a friendly feeling on the part of the people of Michigan towards them, while numbers of the Indians are prepared to submit to the extension of the township, county and general laws over them. I have no confidence in the expectation, however, that the final result of purchasing lands at the land offices, and remaining in the white settlements, will be a whit more favorable here, than it has been in other positions where the experiment has been made. There are numerous causes of latent dislike and disunion between two great stocks of the human race, who are so different in their leading traits, physical and intellectual, as the American Indians and the Teutonic or the Celtic, and although legislation may commence here, as it is likely to do, in kindness and a sincere wish to advance the Indians in civilization, there are deep seated reasons why it will, within a comparatively short period, develope itself in a form strongly adverse to recognize an equality with the tribes, who may receive as a *boon*, what they cannot claim under the constitution of Michigan, as a *right*.

The license system was continued after the date of my last annual report, over the ceded territory, up to December 31, 1839. The details belonging to this subject, will be seen in the subjoined abstract, No. 1. Subsequently to this date, all

Digitized by Google

those portions of the "Act relative to trade, barter and the introduction of ardent spirits," embracing particular sections from 1 to 10, and from 20 to 21 inclusive, and also section 23, have been confined in their operation to the portion of Michigan extending west of the Itchisibee, or Chocolate river, on Lake Superior, the title to which remains in the Indian tribes. It is still a question, worthy of consideration, whether congress may not deem it expedient, under the general constitutional provision embracing this subject, to pass some enactment to shield them from the sale or introduction of ardent spirits, and the barter, pledge, or sale of their arms or utensils, while they remain on the public domain. For it must be borne in mind, that these tribes have not entered into any actual arrangement to remove west, but are living on the ceded lands under a general usufractory right secured to them by the 13th article of the treaty.

That the Ottawas and Chippewas of Michigan, to whom these remarks apply, cannot long remain in prosperity upon the ceded lands, must, however, be apparent to every person who has devoted his attention to the subject. And the question of their removal and final location, is one that begins to assume, in this quarter, importance, and has been discussed by the Indians themselves, within a few years past, with much interest. A large portion of them are disinclined to go to the Indian territory west, under any circumstances. Some feel disposed to purchase lands at the public land offices, and remain as cultivators of the soil; and a few, at the head of whom stands the intelligent chief Wakazo, have actually made such purchases. Portions of these bands look to Canada as a final refuge, should coercive measures for their removal be employed, and a number of them have actually migrated to that quarter, partly influenced by the fear of their expulsion by force, and partly by the attraction of sharing in the presents issued to the Indians, by the British government, at their frontier posts. The reserves made by them in the treaty of sale, will all expire with the month of May, 1841. Could they be induced to give up, by compact, the right of occupancy upon the unsold public lands, at least to all the territory situated *south of the straits of Michilimackinac*, it is believed theirs and our best interests would be secured thereby. It is satisfactorily shown, from the surveys, that the Michigan peninsula will settle compactly up to that point. Both the climate and soil, with limited exceptions as to the latter, are highly favorable to the growth of wheat, fruit, corn, barley, peas, oats and other productions of the latitudes embraced by it. In addition to which, the recent discovery of prime saline waters, gypsum, bog ore, slaty coal and shell marl, together with the pineries, the amount of water power of its streams, and the facilities of

Digitized by Google

lake navigation, point it out as a highly and permanently valuable portion of the state. Settlements have already extended to about midway of the valley of the Maskigo. The entire peninsula is now surveyed into townships, up to the straits of Michilimackinac, and sub-divided to near the south point of Little Traverse bay, Lake Michigan, and the remainder is in the process of sub-division, and with the close of the present year, will all be reported to the general land office for its action. The whole area is open to the scrutiny and enterprize of a steadily accumulating population, and it cannot be predicted that the comparatively large number of Ottawas and Chippewas who are still located here, can maintain themselves for any length of time by hunting. Collisions happen whenever the two races come into contact. No small part of the business of this office consists of the hearing and examination of claims on both sides. The murder of Glass and his family, on the head waters of Grand river, in 1838, which yet remains unexpiated, indicates that it is impossible to shield the settlers, at all points, from occasional out-breaks of personal vindiction. The earlier the local separation is, therefore, effected between masses of population so wholly dissimilar as the white and the red, the more auspicious will it be for the peace and prosperity of both. There are no lateral causes to be evolved, it is believed, which will arrest the spread of the Saxon race over the whole continent, and it is not probable that any provision can be made for the preservation of the aboriginal race, which promises to be so effectual as their colonization, or transference to a separate territory, where they cannot be reached by the evils which now press upon them, or thwarted in their peculiar mode of government and laws. If the Indian is ever successfully to assert his claims to distinction, among the races of men, it must be under circumstances which will give latitude to the peculiar bent and tastes of aboriginal intellect. High notions of independence have ever been evinced by all the tribes, without, however, showing the foresight, nerve or prudence to preserve, or, in reality, to attain it. It is apparent that the power of ratiocenation in this race, is feebly developed; while all past observation proves, that the desire of present good, or gratifications of a merely physical character, have uniformally predominated over considerations of the past and the future. Hence they have lived only for the passing day, and they have actually failed, throughout more than two centuries of our history, to make any general, solid, or wise provision for their true advancement in civilization. All such attempts on their part, in the United States, date since 1800, and it is very manifest, that these efforts must have ended in an entire failure, had not the general government come to their rescue, about eighteen years since, with the plan of an independent

Digitized by Google

western colonization, or territorial settlement. Whether the removed tribes shall all be confined to one territory, or there shall be a northern and a southern refuge, is a question open for discussion at this time, as the extent of the country south of the Missouri, is understood to be inadequate to locate all the tribes. You will pardon these remarks, if they appear to be, in any respect, disquisitive; the object being, to apply them to several thousands of men, of a manly and interesting stock and lineage in the upper lakes; namely, the Chippewa and Ottawa branches of the Algonquin, who have just now reached a crisis in their affairs. And as there is manifestly a want of both decision of character and sound foresight, on their part, to meet it, a renewed effort to produce unity of plan and action, would seem to be due on the part of the government. That any results of a favorable character can be anticipated, either where they now are, or where they may be finally located, without the general adoption of letters, and the principles of christianity by the tribes, is, however, quite idle. Those who advocate a contrary policy, cling to a fallacy, which will be found to be wholly exploded by an attentive examination *of* the general history and progress of foreign and domestic education and missionary effort, within the last *forty years*, *during* which period, they have been the most active. This report does not afford scope for any thing beyond a brief synoptical notice of school and mission operations, even among these tribes, and this will be deferred to the sequel.

Placed in contact with the Canadian frontiers, this office has not overlooked, during the past year, the efforts made to concentrate an Indian colony on the Manitoulin islands, within the Lake Huron borders of Upper Canada. The number of Indians who assembled there in the months of July and August last, is variously estimated at from 3,000 to 6,000. It included parties from the shores of Lake Superior, the heads of the Mississippi, and Pembina, as well as the more contiguous tribes of Michigan, and from portions of Wisconsin and Iowa. While the assemblage of visiting Indians is reported to have been larger than usual, the permanent migration from our territory is believed to have been less than it was the previous year, and a tone of dissatisfaction is evinced by some of the returning Indians. Always unduly influenced by present advantages, it is believed that the cause of this rather altered feeling among them, is to be found in the larger number of participants in the presents issued there, which necessarily made the divisor larger, and the distributive share to each, less. About forty persons, mostly children, are reported to have died while there, and on the journey. A feeling that was temporary will pass away with the cause of it, and there is no doubt but numbers will continue annually to meet at these islands, as a rendezvous, so

Digitized by Google

long as presents are given to them without distinction as to their place of residence. That the United States Indians are thus suborned, contrary to good faith, cannot be disguised. Many of the chiefs are indeed shrewd enough to perceive this, and some of them have acknowledged it to me the present season. They furthermore observe, that the location is not a favorable one for their permanent residence. The climate is not absolutely forbidding, although it is unfavorable to the profitable growth of corn. Portions of the soil are dry, much of it is stony, parts consist of bleak rock. The fisheries are not to be relied on; there is absolutely no game upon which the Indians can depend, and the coasts are very tempestuous, and cannot be navigated in canoes, a large portion of the year. Take away the extraneous advantages of this position, and the settlement would rapidly dwindle away. Indeed, the sound of his words have scarcely died on my ears, since a very intelligent and shrewd Michigan chief stated to me, that, in his view, the British government held out inducements to their assembling there, more from the hope of securing the services of the Indians, in any future difficulties with the United States, than from any other cause.

It is conceived proper to apprise the department of the annual movements in this respect among the lake Indians, rather with the view, however, of putting it in possession of the information, than from any belief that the subject calls for particular action, at this time, and under the present loose, and, as it appears to me, unsanctioned state of the Manitoulin project on the part of the home government.

In the month of January last, letters were intercepted at the falls of Ste Marie, which revealed a proposition by the local agents at the Manitoulins, to embrace the half-breed population of the north-west with the Indian population, and to issue presents to them, as is done to the erratic Indians, if they would assent to the arrangement, and enrol themselves for the purpose. The originals of these letters, which were written in French, were transmitted to the department in my letter of the 7th May last, and translations retained here. On the 28th April last, about three months subsequent to this disclosure, Springwalk, the leading chief of the Indians residing on the Canadian borders of the straits of Ste Marie, brought forward the same project, in a mixed council of the Indians and half-breeds on that frontier, embracing hearers from both sides of the lines.

"You know," he declared in his speech, "what our English fathers told us, whilst they were here. Whether the thing you ask from the British government will be granted or not, we do not know, but if the half-breeds will consent to be under us, *as Indians*, we hope it will be granted. This is what our fa-

Digitized by Google

thers told us. The half-breeds on our side (of the river) have nearly all consented. I am now going to the Manitoes, in a few days, to learn where our presents are to be given to us, here, or at the Manitoes, and to get a farmer, a yoke of oxen and farming utensils, a blacksmith, a carpenter, and all their tools, window-glass and nails, for our improvements, and wheat, oats and potatoes, to plant at Garden river, all of which they have promised us."

Emigration from Michigan to the Indian territory west of the Mississippi, within the year, has been confined to the Chippewas of Swan creek and Black river, who reached their destination on the Osage early in the month of November, 1839. They were received with kindness by the Shawnees, the Ottawas of Maumee, the Delawares, and other kindred tribes, and immediately began to clear lands and make preparations for building and fencing. The mildness of the climate permitted them to labor uninterruptedly through the winter. The improvements made by the tribes who had preceded them, roused a spirit of emulation which has led to the happiest results. An eye witness writes, "that they are doing as well, if not better, than any other emigrant tribe." By the 20th of April last, each head of a family had cleared and fenced and planted a number of acres, and most of them had built comfortable log cabins. Some of them had made as many as five thousand rails. The chief had about twelve to fifteen acres inclosed, and had completed a good log dwelling. Not a case of drunkenness had been known; and indeed, their remote position rendered it difficult to procure spirituous liquors. Maj. Pitcher, to whose superintendency they had been transferred, promptly furnished them subsistence on their arrival, and I have it from their chief, as well as from others, that they have been kindly received by the government agents west, and found the country to surpass, in fertility and climate, any that they had ever known. I have the most emphatic testimony on this point, from the chief, Eshtonoquot, who, taking up a handful of the black earth from his reserve on the Osage, said to one of the emigrating officers, "this is richer than all the land I left on Swan creek."

It is desirable that the remnants of these bands, who still remain in Michigan, should follow their brethren, and this most of them are now willing to do, as one of the emigrants of last year has verbally reported to them the great advantage of their change. There is a double reason for their sanctioning this policy; not only have they sold all their lands in Michigan, but their old annuity is payable exclusively, (beginning with 1840,) west of the Mississippi.

Although these bands have been sent west, at an expense disproportioned to their numbers, and the sale of their lands

Digitized by Google

has not yet rëimbursed the advance made them, still their obvious claims, as one of the principal stocks of the ancient tribes of Detroit, and being the first band which has actually and successfully emigrated west, from the latitude of central Michigan, furnish strong reasons for furthering, at the earliest possible time, their rëunion with the western Chippewas.

The opinion of the Shawnee nation in favor of the location and the lands in that quarter generally, may be here appropriately added, from a formal communication made by that nation in council, addressed to the Chippewas of Michigan. This communication bears date April 18, 1840, and is signed by their leading chiefs Wawillasse, Joseph, Parks and Setho.

"We have been living," they say, "in this country since 1832, and find it to be healthy and pleasant, and as to soil and farming purposes, it is not in our opinions, to be exceeded by any in the world. It has been a country crowded with game but it would not do to think of living on game only, as there can be so much better living made by farming and cultivating the soil.

"So if you intend to move, we will give you our advice as brothers, to come to our (section of) country, as we feel confident you will be well pleased, and never repent the move to it. And the country that has been reserved for you, is south of this place, (Shawnee council house,) fifty or sixty miles, and is also a very fine country. And this country is for the red people only, and the best that they can ever get from the American government. As you all know, that when we are surrounded by whites, that we are poisoned to death by some of the trifling ones that flood our country with liquor, and kill off our people. That is one great cause why the red people will do much better here than where we came from."

This is the confidential testimony of one tribe to another. It is the language of a people in a state of rapid transition from barbarism to civilization, who have abandoned the chase as a means of living, and began in good earnest, both to appreciate and practice agriculture. It is further worthy of notice, as the recorded experience of a tribe, after but eight years' residence in their new location, notwithstanding their strong previous predilection for the hunter state and the land of their nativity in the Ohio valley.

An act to regulate trade and intercourse with the Indian tribes, and to preserve peace on the frontiers.

SEC. 1. *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That all that part of the United States, west of the Mississippi, and not within the states of Missouri and Louisiana,

Digitized by Google

or the territory of Arkansas, and also, that part of the United States east of the Mississippi river, and not within any state to which the Indian title has not been extinguished, for the purposes of this act, be taken and deemed to be the Indian country.

Sec. 2. *And be it further enacted*, That no person shall be permitted to trade with any of the Indians (in the Indian country) without a license therefor from a superintendent of Indian affairs, or Indian agent or sub-agent, which license shall be issued for a term not exceeding two years for the tribes east of the Mississippi, and not exceeding three years for the tribes west of that river. And the person applying for such license, shall give bond in a penal sum not exceeding five thousand dollars, with one or more sureties, to be approved by the person issuing the same, conditioned that such person will faithfully observe all the laws and regulations made for the government of trade and intercourse with the Indian tribes, and in no respect violate the same. And the superintendent of the district, shall have power to revoke and cancel the same, whenever the person licensed, shall, in his opinion, have transgressed any of the laws or regulations provided for the government of trade and intercourse with the Indian tribes, or that it would be improper to permit him to remain in the Indian country. And no trade with the said tribes shall be carried on within their boundary, except at certain suitable and convenient places, to be designated from time to time by the superintendents, agents, and sub-agents, and to be inserted in the license. And it shall be the duty of the persons granting or revoking such licenses, forthwith to report the same to the commissioner of Indian affairs, for his approval or disapproval.

Sec. 3. *And be it further enacted*, That any superintendent, or agent may refuse an application for a license to trade, if he is satisfied that the applicant is a person of bad character, or that it would be improper to permit him to reside in the Indian country, or if a license, previously granted to such applicant has been revoked, or a forfeiture of his bond decreed. But an appeal may be had from the agent or the superintendent, to the commissioner of Indian affairs; and the president of the United States shall be authorized, whenever in his opinion the public interest may require the same, to prohibit the introduction of goods, or of any particular article, into the country belonging to any Indian tribe, and to direct all licenses to trade with such tribe to be revoked, and all applications therefor, to be rejected; and no trader to any other tribe, shall, so long as such prohibition may continue, trade with any Indians of or for the tribe against which such prohibition is issued.

Sec. 4. *And be it further enacted*, That any person, other than an Indian who shall attempt to reside in the Indian country as a trader, or to introduce goods, or to trade therein with-

Digitized by Google

out such license, shall forfeit all merchandize offered for sale to the Indians, or found in his possession, and shall moreover forfeit and pay the sum of five hundred dollars.

SEC. 5. *And be it further enacted*, That no license to trade with the Indians shall be granted to any persons except citizens of the United States: *Provided*, That the president shall be authorized to allow the employment of foreign boatmen and interpreters, under such regulations as he may prescribe.

SEC. 6. *And be it further enacted*, That if a foreigner shall go into the Indian country without a passport from the War department, the superintendent, agent, or sub-agent of Indian affairs, or from the officer of the United States commanding the nearest military post on the frontiers, or shall remain intentionally therein after the expiration of such passport, he shall forfeit and pay the sum of one thousand dollars; and such passport shall express the object of such person, the time he is allowed to remain, and the route he is to travel.

SEC. 7. *And be it further enacted*, That if any person other than an Indian shall, within the Indian country, purchase or receive of any Indian, in the way of barter, trade, or pledge, a gun, trap, or other article commonly used in hunting, any instrument of husbandry or cooking utensils of the kind commonly obtained by the Indians in their intercourse with the white people, or any other article of clothing, except skins or furs, he shall forfeit and pay the sum of fifty dollars.

SEC. 8. *And be it further enacted*, That if any person other than an Indian, shall, within the limits of any tribe with whom the United States shall have existing treaties, hunt or trap, or take and destroy, any peltries or game, except for subsistence, in the Indian country, such person shall forfeit the sum of five hundred dollars, and forfeit all the traps, guns, and ammunition in his possession, used or procured to be used for that purpose, and peltries so taken.

SEC. 9. *And be it further enacted*, That if any person shall drive, or otherwise convey any stock of horses, mules, or cattle, to range or feed on any land belonging to any Indian or Indian tribe, without the consent of such tribe, such person shall forfeit the sum of one dollar for each animal of such stock.

SEC. 10. *And be it further enacted*, That the superintendent of Indian affairs, and Indian agents and sub-agents, shall have authority to remove from the Indian country, all persons found therein contrary to law; and the president of the United States is authorized to direct the military force to be employed in such removal.

SEC. 11. *And be it further enacted*, That if any person shall make a settlement on any lands belonging, secured or granted by treaty with the United States to any Indian tribe, or shall survey or shall attempt to survey such lands, or designate any

Digitized by Google

of the boundaries by marking trees, or otherwise, such offender shall forfeit and pay the sum of one thousand dollars. And it shall, moreover, be lawful for the president of the United States to take such measures, and to employ such military force as he may judge necessary to remove from the land, as aforesaid, any such person, as aforesaid.

SEC. 12. *And be it further enacted*, That no purchase, grant, lease, or other conveyance of lands, or of any title or claim thereto, from any Indian nation or tribe of Indians, shall be of any validity in law or equity, unless the same be made by treaty or convention entered into pursuant to the constitution. And if any person, not employed under the authority of the United States, shall attempt to negotiate such treaty or convention, directly or indirectly, to treat with any such nation or tribe of Indians, for the title or purchase of any lands by them held or claimed, such person shall forfeit and pay one thousand dollars: *Provided, nevertheless*, That it shall be lawful for the agent or agents of any state who may be present at any treaty held with Indians under the authority of the United States, in the presence, and with the approbation of the commissioner or commissioners of the United States appointed to hold the same, to propose to, and adjust with the Indians, the compensation to be made for their claim to lands within such state which shall be extinguished by treaty.

SEC. 13. *And be it further enacted*, That if any citizen or other person residing within the United States or the territory thereof, shall send any talk, speech, message or letter to any Indian nation, tribe, chief, or individual, with any intent to produce a contravention or infraction of any treaty or other law of the United States, or to disturb the peace and tranquility of the United States, he shall forfeit and pay the sum of two thousand dollars.

SEC. 14. *And be it further enacted*, That if any citizen, or other person, shall carry or deliver any such talk, message, speech, or letter, to or from any Indian nation, tribe, chief, or individual, from or to any person or persons whatsoever, residing within the United States, or from or to any subject, citizen, or agent of any foreign power or state, knowing the contents thereof, he shall forfeit and pay the sum of one thousand dollars,

SEC. 15. *And be it further enacted*, That if any citizen, or other person, residing or living among the Indians, or elsewhere within the territory of the United States, shall carry on a correspondence, by letter or otherwise, with any foreign nation or power, with an intent to induce such foreign nation or power to excite any Indian nation, tribe, chief, or individual, to war against the United States, or to the violation of any existing treaty; or in case any citizen or other person shall

Digitized by Google

alienate, or attempt to alienate, the confidence of any Indian or Indians, from the government of the United States, he shall forfeit the sum of one thousand dollars.

SEC. 16. *And be it further enacted*, That where, in the commission, by a white person, of any crime, offence, or misdemeanor, within the Indian country, the property of any friendly Indian is taken, injured, or destroyed, and a conviction is had for such crime, offence, or misdemeanor, the person so convicted shall be sentenced to pay to such friendly Indian to whom the property may belong, or whose person may be injured, a sum equal to twice the just value of the property so taken, injured, or destroyed. And if such offender shall be unable to pay a sum at least equal to the just value or amount, whatever such payment shall fall short of, the same shall be paid out of the treasury of the United States: *Provided*, That no such Indian shall be entitled to any payment, out of the treasury of the United States, for any such property, if he, or any of the nation to which he belongs, shall have sought private revenge, or attempted to obtain satisfaction by any force or violence: *And provided, also*, That if such offender cannot be apprehended and brought to trial, the amount of such property shall be paid out of the treasury, as aforesaid.

SEC. 17. *And be it further enacted*, That if any Indian or Indians, belonging to any tribe in amity with the United States, shall, within the Indian country, take or destroy the property of any person lawfully within such country, or shall pass from the Indian country into any state or territory inhabited by citizens of the United States, and there take, steal, or destroy, any horse, horses, or other property belonging to any citizen or inhabitant of the United States, such citizen or inhabitant, his representative, attorney, or agent, may make application to the proper superintendent, agent, or sub-agent, who, upon being furnished with the necessary documents and proofs, shall, under the direction of the president, make application to the nation or tribe to which said Indian or Indians shall belong, for satisfaction; and if such nation or tribe shall neglect or refuse to make satisfaction, in a reasonable time, not exceeding twelve months, it shall be the duty of such superintendent, agent, or sub-agent, to make return of his doings to the commissioner of Indian affairs, that such further steps may be taken as shall be proper, in the opinion of the president, to obtain satisfaction for the injury; and, in the mean time, in respect to the property so taken, stolen, or destroyed, the United States guaranty to the party so injured, an eventual indemnification: *Provided*, That, if such injured party, his representative, attorney, or agent, shall, in any way, violate any of the provisions of this act, by seeking or attempting to obtain private satisfaction or revenge, he shall forfeit all claim upon the United States for

Digitized by Google

such indemnification: *And provided, also,* That, unless such claim shall be presented within three years after the commission of the injury, the same shall be barred. And if the nation or tribe to which such Indian may belong, receive an annuity from the United States, such claim shall, at the next payment of the annuity, be deducted therefrom, and paid to the party injured; and, if no annuity is payable to such nation or tribe, then the amount of the claim shall be paid from the treasury of the United States: *Provided,* That nothing herein contained shall prevent the legal apprehension and punishment of any Indians having so offended.

SEC. 18. *And be it further enacted,* That the superintendents, agents, and sub-agents, within their respective districts, be and they are hereby, authorized and empowered to take depositions of witnesses touching any depredations within the purview of the two preceding sections of this act, and to administer an oath to the deponents.

SEC. 19. *And be it further enacted,* That it shall be the duty of the superintendents, agents, and sub-agents, to endeavor to procure the arrest and trial of all Indians accused of committing any crime, offence, or misdemeanor, and all other persons who may have committed crimes or offences within any state or territory, and have fled into the Indian country, either by demanding the same of the chiefs of the proper tribe, or by such other means as the president may authorize; and the president may direct the military force of the United States to be employed in the apprehension of such Indians, and also in preventing or terminating hostilities between any of the Indian tribes.

SEC. 20. *And be it further enacted,* That if any person shall sell, exchange, or give, barter, or dispose of, any spirituous liquor or wine to an Indian, (in the Indian country,) such person shall forfeit and pay the sum of five hundred dollars; and if any person shall introduce, or attempt to introduce, any spirituous liquor or wine into the Indian country, except such supplies as shall be necessary for the officers of the United States and troops of the service, under the direction of the war department, such person shall forfeit and pay a sum not exceeding three hundred dollars; and if any superintendent of Indian affairs, Indian agent, sub-agent, or commanding officer of a military post, has reason to suspect, or is informed, that any white person or Indian is about to introduce, or has introduced, any spirituous liquor or wine into the Indian country, in violation of the provisions of this section, it shall be lawful for such superintendent, Indian agent, or sub-agent, or military officer, agreeable to such regulations, as may be established by the president of the United States, to cause the boats, stores, packages, and places of deposit of such persons to be

Digitized by Google

searched, and if any such spirituous liquor or wine is found, the goods, boats, packages, and peltries of such persons shall be seized and delivered to the proper officer, and shall be proceeded against by libel in the proper court, and forfeited, one-half to the use of the informer, and the other half to the use of the United States; and if such person is a trader, his license shall be revoked and his bond put in suit. And it shall, moreover, be lawful for any person in the service of the United States, or for any Indian, to take and destroy any ardent spirits or wine found in the Indian country, except military supplies, as mentioned in this section.

SEC. 21. *And be it further enacted*, That if any person whatever shall, within the limits of the Indian country, set up or continue any distillery for manufacturing ardent spirits, he shall forfeit and pay a penalty of one thousand dollars; and it shall be the duty of the superintendent of Indian affairs, Indian agent, or sub-agent, within the limits of whose agency the same shall be set up or continued, forthwith to destroy and break up the same; and it shall be lawful to employ the military force of the United States in executing that duty.

SEC. 22. *And be it further enacted*, That in all trials about the right of property in which an Indian may be a party on one side, and a white person on the other, the burden of proof shall rest upon the white person, whenever the Indian shall make out a presumption of title in himself from the fact of previous possession or ownership.

SEC. 23. *And be it further enacted*, That it shall be lawful for the military force of the United States to be employed in such manner and under such regulations as the president may direct, in the apprehension of every person who shall or may be found in the Indian country, in violation of any of the provisions of this act, and him immediately to convey from said Indian country, in the nearest convenient and safe route, to the civil authority of the territory or judicial district in which said person shall be found, to be proceeded against in due course of law; and also in the examination and seizures of stores, packages, and boats, authorized by the twentieth section of this act, and in preventing the introduction of persons and property into the Indian country contrary to law; which persons and property shall be proceeded against according to law: *Provided*, That no person apprehended by military force, as aforesaid, shall be detained longer than five days after the arrest and before removal. And all officers and soldiers who may have any such person or persons in custody, shall treat them with all the humanity which the circumstances will possibly permit; and every officer or soldiers who shall be guilty of maltreating any such person while in custody, shall suffer such punishment as a court martial shall direct.

Digitized by Google

SEC. 24. *And be it further enacted*, That for the sole purpose of carrying this act into effect, all that part of the Indian country west of the Mississippi river, that is bounded north by the north line of lands assigned to the Osage tribe of Indians, produced east to the state of Missouri; west, by the Mexican possessions; south, by Red river; and east, by the west line of the territory of Arkansas and the state of Missouri, shall be, and hereby is, annexed to the territory of Arkansas; and that for the purpose aforesaid, the residue of the Indian country west of said Mississippi river shall be, and hereby is, annexed to the judicial district of Missouri; and for the purpose aforesaid, the several portions of Indian country east of the said Mississippi river, shall be, and are hereby severally annexed to the territory in which they are situate.

SEC. 25. *And be it further enacted*, That so much of the laws of the United States as provides for the punishments of crimes committed within any place within the sole and exclusive jurisdiction of the United States, shall be in force in the Indian country: *Provided*, The same shall not extend to crimes committed by one Indian against the person or property of another Indian.

SEC. 26. *And be it further enacted*, That if any person who shall be charged with a violation of any of the provisions or regulations of this act, shall be found within any of the United States, or either of the territories, such offenders may be there apprehended, and transported to the territory or judicial district having jurisdiction of the same.

SEC. 27. *And be it further enacted*, That all penalties which shall accrue under this act, shall be sued for and recovered in an action of debt, in the name of the United States, before any court having jurisdiction of the same, (in any state or territory in which the defendant shall be arrested or found, the one-half to the use of the informer, and the other half to the use of the United States, except when the prosecution shall be first instituted on behalf of the United States, in which case the whole shall be to their use.

SEC. 28. *And be it further enacted*, That when goods or other property shall be seized for any violation of this act, it shall be lawful for the person prosecuting on behalf of the United States, to proceed against such goods or other property, in the manner directed to be observed in the case of goods, wares or merchandize brought into the United States in violation of the revenue laws.

SEC. 29. *And be it further enacted*, That the following acts and parts of acts shall be and the same are hereby repealed, namely: "An act to make provision relative to rations for Indians, and to their visits to the seat of government," approved May thirteen, eighteen hundred; "An act to regulate trade and

Digitized by Google

intercourse with the Indian tribes, and to preserve peace on the frontiers," approved March thirty, eighteen hundred and two; "An act supplementary to the act passed thirtieth March, eighteen hundred and two, to regulate trade and intercourse with the Indian tribes, and to preserve peace on the frontiers," approved April twenty-nine, eighteen hundred and sixteen; "An act for the punishment of crimes and offences committed within the Indian boundaries," approved March three, eighteen hundred and seventeen; the first and second sections of the "Act directing the manner of appointing Indian agents, and continuing the 'Act establishing trading houses with the Indian tribes,'" approved April sixteen, eighteen hundred and eighteen; "An act fixing the compensation of Indian agents and factors, approved April twenty, eighteen hundred and eighteen; "An act supplementary to the act entitled 'An act to provide for the prompt settlement of public accounts,'" approved February twenty-four, eighteen hundred and nineteen; the eighth section of the "Act making appropriations to carry into effect treaties concluded with several Indian tribes therein mentioned," approved March three, eighteen hundred and nineteen; the second section of the "Act to continue in force for a further time, the act entitled 'An act for establishing trading houses with the Indian tribes, and for other purposes,'" approved March three, eighteen hundred and nineteen; "An act to amend an act entitled 'An act to regulate trade and intercourse with the Indian tribes, and to preserve peace on the frontiers,'" approved thirtieth March, eighteen hundred and two, approved May six, eighteen hundred and twenty-two; "An act providing for the appointment of an agent for the Osage Indians west of the state of Missouri and territory of Arkansas, and for other purposes," approved May eighteen, eighteen hundred and twenty-four; the third, fourth and fifth sections of "An act to enable the president to hold treaties with certain Indian tribes, and for other purposes," approved May twenty-five, eighteen hundred and twenty-four; the second section of the "Act to aid certain Indians of the Creek nation in their removal to the west of the Mississippi," approved May twenty, eighteen hundred and twenty-six; and "An act to authorize the appointment of a sub-agent to the Winnebago Indians on Rock river," approved February twenty-five, eighteen hundred and thirty-one; *Provided, however*, That such repeal shall not affect any rights acquired, or punishments, penalties or forfeitures, incurred under either of the acts or parts of acts, nor impair or effect the intercourse act of eighteen hundred and two, so far as the same relates to or concerns Indian tribes residing east of the Mississippi: *And provided also*, That such repeal shall not be construed to revive any acts or parts of acts repealed by either of the acts or sections herein described.

Digitized by Google

SEC. 30. *And be it further enacted*, That until a western territory shall be established, the two agents for the western territory, as provided in the act for the organization of the Indian department, this day approved by the president, shall execute the duties of agents for such tribes as may be directed by the president of the United States. And it shall be competent for the president to assign to one of the said agents, in addition to his proper duties, the duties of superintendent for such district of country or for such tribes as the president may think fit. And the powers of the superintendent at St. Louis, over such district or tribes as may be assigned to such acting superintendent, shall cease: *Provided*, That no additional compensation shall be allowed for such services.

Approved, June 30th, 1834.

—

An act to provide for the organization of the Department of Indian Affairs.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the duties of the governors of the territories of Florida and Arkansas, as superintendents of Indian affairs, shall hereafter cease, and the duties of the governor of the territory of Michigan, as superintendent of Indian affairs, shall cease from and after the establishment of a new territory, embracing the country west of Lake Michigan, should such a territory be established. And while the governor of the said territory of Michigan continues to act as superintendent of Indian affairs, he shall receive therefor the annual sum of one thousand dollars, in full of all allowances, emoluments, or compensation for services in said capacity.

SEC. 2. *And be it further enacted*, That there shall be a superintendency of Indian affairs for all the Indian country, not within the bounds of any state or territory west of the Mississippi river, the superintendent of which shall reside at St. Louis, and shall annually receive a salary of fifteen hundred dollars.

SEC. 3. *And be it further enacted*, That the superintendents of Indian affairs shall, within their several superintendencies, exercise a general supervision and control over the official conduct and accounts of all officers and persons employed by the government in the Indian department, under such regulations as shall be established by the president of the United States; and may suspend such officers and persons from their office or employments, for reasons forthwith to be communicated to the secretary of war.

Digitized by Google

SEC. 4. *And be it further enacted*, That the following Indian agents shall be appointed by the president of the United States, by and with the advice and consent of the senate, who shall hold their offices for the term of four years, and who shall give bonds, with two or more securities, in the penal sum of two thousand dollars, for the faithful execution of the same, and shall each receive the annual compensation of fifteen hundred dollars:

Two agents for the western territory;
An agent for the Chickasaws;
An agent for the eastern Cherokees;
An agent for the Florida Indians;
An agent for the Indians in the state of Indiana;
An agent at Chicago;
An agent at Rock Island;
An agent at Prairie du Chien;
An agent for Michilimackinac and the Saut Ste Marie;
An agent for Saint Peter's;
An agent for the Upper Missouri.

And the following agencies shall be discontinued at the periods herein mentioned, that is to say:

The Florida agency, from and after the thirty-first day of December next.

The Cherokee agency, from and after the thirty-first day of December next.

The Indiana agency, from and after the thirty-first day of December, 1836.

The Chicago agency, from and after the thirty-first day of December next.

The Rock Isand agency, from and after the thirty-first day of December, 1836.

And all other agencies, not provided for in this act, from and after the passing thereof: *Provided*, That the limitation of the said agencies, shall not be construed to prevent the president of the United States from discontinuing the same at an earlier period. And the president shall be, and he is hereby authorized, whenever he may judge it expedient, to discontinue any Indian agency, or to transfer the same, from the place or tribe designated by law, to such other place or tribe as the public service may require. And every Indian agent shall reside and keep his agency within or near the territory of the tribe for which he may be agent, and at such place as the president may designate, and shall not depart from the limits of his agency without permission. And it shall be competent for the president to require any military officer of the United States to do the duties of Indian agent.

SEC. 5. *And be it further enacted*, That a competent number of sub-agents shall be appointed by the president, with an an-

Digitized by Google

nual salary of seven hundred and fifty dollars each, to be employed and to reside wherever the president may direct, and who shall give bonds, with one or more sureties, in the penal sum of one thousand dollars, for the faithful execution of the same. But no sub-agent shall be appointed, who shall reside within the limits of any agency where there is an agent appointed.

SEC. 6. *And be it further enacted*, That nothing herein contained shall be construed to require the reappointment of persons now in office, until the expiration of their present term of service; but the commissions of all Indian agents and sub-agents, now in office, shall expire on the fourth day of March next, unless sooner terminated.

SEC. 7. *And be it further enacted*, That the limits of each agency and sub-agency shall be established by the secretary of war, either by tribes or by geographical boundaries. And it shall be the general duty of Indian agents and sub-agents to manage and superintend the intercourse with the Indians within their respective agencies, agreeably to law; to obey all legal instructions given to them by the secretary of war, the commissioner of Indian affairs, or the superintendent of Indian affairs; and to carry into effect such regulations as may be prescribed by the president.

SEC. 8. *And be it further enacted*, That the president of the United States may, from time to time, require additional security, and in larger amounts, from all persons charged or trusted under the laws of the United States, with the disbursement or application of money, goods or effects of any kind, on account of the Indian department.

SEC. 9. *And be it further enacted*, That an interpreter shall be allowed to each agency, who shall receive an annual salary of three hundred dollars: *Provided*, That where there are different tribes in the same agency, speaking different languages, one interpreter may be allowed, at the discretion of the secretary of war, for each of the said tribes. Interpreters shall be nominated by the proper agents, to the war department for approval, and may be suspended, by the agent, from pay and duty, and the circumstances reported to the war department for final action; and blacksmiths shall, in like manner, be employed wherever required by treaty stipulations, and such blacksmith shall receive an annual compensation of four hundred and eighty dollars; and if they furnish their shop and tools, an additional sum of one hundred and twenty dollars; and their assistants shall be allowed an annual compensation of two hundred and forty dollars. And wherever farmers, mechanics or teachers are required by treaty stipulations to be provided, they shall be employed under the direction of the war department, and shall receive an annual compensation of

Digitized by Google

not less than four hundred and eighty dollars, nor more than six hundred dollars. And in all cases of the appointments of interpreters, or other persons employed for the benefit of the Indians, a preference shall be given to persons of Indian descent, if such can be found, who are properly qualified for the execution of the duties. And where any of the tribes are, in the opinion of the secretary of war, competent to direct the employment of their blacksmiths, mechanics, teachers, farmers or other persons engaged for them, the direction of such persons may be given to the proper authority of the tribe.

SEC. 10. *And be it further enacted*, That the compensation prescribed by this act shall be in full of all emoluments or allowances whatsoever: *Provided, however*, That, where necessary, a reasonable allowance or provision may be made for offices and office contingencies: *And provided, also*, That where persons are required, in the performance of the duties under this act, to travel from one place to another, their actual expenses, or a reasonable sum in lieu thereof, may be allowed them: *And provided, also*, That no allowance shall be made to any person for travel, or expenses in coming to the seat of government to settle his accounts, unless thereto required by the secretary of war: *And provided, also*, That no person shall hold more than one office at the same time under this act, nor shall any agent, sub-agent, interpreter, or person employed under this act, receive his salary while absent from his agency or employment, without leave of the superintendent or secretary of war: *Provided*, Such absence shall, at no one time, exceed sixty days.

SEC. 11. *And be it further enacted*, That the payment of all annuities, or other sums stipulated by treaty to be made to any Indian tribe, shall be made to the chiefs of such tribe, or to such person as said tribe shall appoint; or if any tribe shall appropriate their annuities to the purpose of education, or to any other specific use, then to such person or persons as such tribe shall designate.

SEC. 12. *And be it further enacted*, That it shall be lawful for the president of the United States, at the request of any Indian tribe to which any annuity shall be payable in money, to cause the same to be paid in goods, purchased as provided in the next section of this act.

SEC. 13. *And be it further enacted*, That all merchandize required by any Indian treaty for the Indians, payable after making of such treaty, shall be purchased under the direction of the secretary of war, upon proposals to be received, to be based on notices previously to be given; and all merchandize required at the making of any Indian treaty, shall be purchased under the order of the commissioners, by such person as they shall appoint, or by such person as shall be designated by the

Digitized by Google

president for that purpose. And all other purchases on account of the Indians, and all payments to them of money or goods, shall be made by such person as the president shall designate for that purpose. And the superintendent, agent or sub-agent, together with such military officer as the president may direct, shall be present, and certify to the delivery of all goods and money required to be paid or delivered to the Indians. And the duties required by any section of this act, of military officers, shall be performed without any other compensation than their actual traveling expenses; and all persons whatsoever, charged with the disbursement, or application of money, goods, or effects of any kind, for the benefit of the Indians, shall settle their accounts annually, at the war department, on the first day of October; and copies of the same shall be laid, annually, before congress, at the commencement of the ensuing session, by the proper accounting officers, together with a list of the names of all persons to whom money, goods or effects had been delivered within said year, for the benefit of the Indians, specifying the amount and object for which it was intended, and showing who are delinquents, if any, in forwarding their accounts according to the provisions of this act; and also, a list of the names of all persons appointed or employed under this act, with the dates of their appointment or employment, and the salary and pay of each.

SEC. 14. *And be it further enacted*, That no person employed in the Indian department shall have any interest or concern in any trade with the Indians, except for, and on account of, the United States; and any person offending herein, shall forfeit the sum of five thousand dollars; and upon satisfactory information of such offence being laid before the president of the United States, it shall become his duty to remove such person from the office or situation he may hold.

SEC. 15. *And be it further enacted*, That the president shall be, and he is hereby authorized to cause any of the friendly Indians west of the Mississippi river, and north of the boundary of the western territory, and the region upon Lake Superior and the head of the Mississippi, to be furnished with useful domestic animals and implements of husbandry, and with goods, as he shall think proper: *Provided*, That the whole amount of such presents shall not exceed the sum of five thousand dollars.

SEC. 16. *And be it further enacted*, That the president be, and he is hereby authorized, to cause such rations as he shall judge proper, and as can be spared from the army provisions, without injury to the service, to be issued, under such regulations as he shall think fit to establish, to Indians who may visit the military posts or agencies of the United States on the fron-

Digitized by Google

tiers, or in their respective nations, and a special account of these issues shall be kept and rendered.

SEC. 17. *And be it further enacted*, That the president of the United States shall be, and he is hereby authorized to prescribe such rules and regulations as he may think fit, for carrying into effect the various provisions of this act, and of any other act relating to Indian affairs, and for the settlement of the accounts of the Indian department.

SEC. 18. *And be it further enacted*, That all acts or parts of acts, contrary to the provisions of this act, shall be, and the same are hereby repealed.

Approved, June 30th, 1834.

—

Executive correspondence with the Secretary of the United States.

(Copy.)

Detroit, November 2, 1840.

Hon. JOHN FORSYTH, *Secretary of State, &c., &c., &c.,*

SIR—In conformity with your request, I herewith transmit to you, an acknowledgment of the receipt of thirty-six copies of the acts of the first session of the twenty-sixth congress.

Without being aware whether or not it be in the power of the state department of the United States to remedy the evil, I beg leave, nevertheless, to remark, that thirty-six copies, annually, of the acts of congress constitutes but a very inadequate supply for the wants of this state. To attain the object which was had in view, in requiring the distribution of the laws of congress, the highest court of record of each county and the superior courts of the state should each be possessed of at least one copy; and a competent number for the use of the legislature and executive departments of the state would seem equally indispensable. The number of thirty-six, falls greatly short of the requisite supply. Our state is divided into thirty-one counties (now organized,) in each of which a court of record is holden, four judicial circuits, in each of which a superior court of law is holden; and into five chancery circuits, in which one or more high court of chancery is holden each year. At the time of our admission into the Union, the population of Michigan considerably exceeded 175,000; and on a fair reading of the constitution, her representation in congress, ought to have been in suitable proportion. In any event, it is manifest that the number of copies transmitted, constitutes a supply altogether inadequate. If there be authority in the state department in any degree to supply the deficiency, may I be per-

Digitized by Google

mitted, sir, to request that you will cause an additional number of the laws to be forwarded, to be disposed of as the legislature of this state may direct. But a much more aggravated evil relative to this matter, remains to be mentioned, and which, unless authority be already vested in you to remedy it, I would very respectfully submit, ought to be presented for the consideration of congress. It is this: that with the exception of such sets of the laws of congress as may heretofore have been sent to certain officers of the national government, resident in this state, there seems a total absence of all supply of complete sets of the United States code. There was not even a complete set of those laws, to which the legislature of the state could have access, until that legislature, some two or three years since, caused one complete set to be purchased.

How far other new states recently admitted, may suffer similar inconveniences, I am not aware, but it certainly accords very illy with the liberal policy of the national government, to subject any portion of its citizens to the provisions of a code to which they can have no access. Should it be in your power, sir, as the chief officer of the department of state, directly or indirectly, to furnish any appropriate remedy for the evil, I would respectfully press upon your consideration the importance of applying it.

I have the honor to remain, sir,
With great respect, your ob't serv't,
WILLIAM WOODBRIDGE.

—

(Copy.)

Detroit, November 3, 1840.

Hon. JOHN FORSRTH, *Secretary of State, &c., &c., &c.*

SIR—However anomalous it may seem or inconsistent with the general scope of our institutions, that the state governments in any of their essential and ordinary operations, should be dependent upon the previous action of the national government, yet in one particular, such seems to be the fact in respect to the government of Michigan.

The constitution of this state provides that the legislature at its first session, after every enumeration of inhabitants made by the authority of the United States, shall apportion anew the representatives and senators among the several counties and districts, &c., according to the number of white inhabitants, &c. And by the scheme of our government, the election of members of our legislature to be holden next after such enumeration and apportionment, are to be holden and regulated in conformity with such apportionment.

Digitized by Google

The period will now soon arrive, when the legislature of this state will assemble. It will become the duty of that legislature to make the new apportionment contemplated, yet I perceive no provision contained in the acts of congress relative to the census now recently taken, for furnishing to this government any official copy of such census, nor for placing any such copy where it may be subject to the control or examination of any of the officers or administrators of it. In this exigency I perceive no course more appropriate for the executive of this state, than respectfully to request you, sir, at as early a period as may be practicable and consistent with your convenience, to cause to be transmittted to me for the use of the legislature of the state of Michigan, an authenticated copy of the census so far as the same relates to this state. This request I now very respectfully submit.

There is one other topic, in relation to which I now venture to trouble you. This state, along its whole extent from Ohio, in Lake Erie, almost to the Fond du Lac, in Lake Superior, borders upon the national boundary. This boundary line, through these inland seas and narrow straits, is perhaps in no part of it, susceptible of actual and permanent demarkation; while the increased population along both sides of the border, and the greatly increased commerce of the lakes, render it more and more desirable, that if it were practicable, the limit of our territorial jurisdiction were familiarly known.

The fisheries of Lake Superior, are now rising into great importance, and are also greatly increased along the straits of Detroit and St. Clair; insomuch that it is a matter of great surprise that our citizens and the subjects of the British province opposite, have not already been brought into frequent and dangerous contact. Cases have occurred, very embarrassing to our judicial courts, while we were yet in a territorial government, in which the question of the actual location of the national boundary, constituted the point of contest. They were cases where, *upon islands*, the authority of process issuing from our courts, was forcibly resisted. And there certainly exists very great danger, that cases of this character may again and frequently recur. It is in the hope that, to a considerable extent at least, this danger may be provided against, and perhaps in some sort obviated, that I do myself the honor to address you.

It is understood that but little difficulty was experienced on the part of the commissioners appointed by the American and the British governments, in adjusting the international boundary along this frontier; and that although the report of those commissioners, so far as it relates to this frontier, may not, perhaps, be considered as definitively confirmed until the line for its whole extent may be agreed upon by the two nations,

Digitized by Google

yet it is supposed that their report, officially authenticated, as regards this frontier, may be deemed to furnish at least, *ad interim*, the best evidence of the identification of that line which is contemplated by treaty. It is further understood that the official report of the commissioners, to the American government, was accompanied by charts accurately taken, and sufficiently exhibiting the location of the line, so far as agreed upon previously, of which charts, many lithographic copies were taken.

Now, sir, with a view to anticipate such grounds of difficulty as I have alluded to, and to lessen, so far as practicable, the evils which may result, I would respectfully solicit you to cause to be transmitted to me, to be deposited in the office of the secretary of state of this state, such official information on this topic as the department of state may contain, likely to be useful with a view to the objects I have suggested, and especially one or more of the lithographic copies of the charts exhibiting the location of the national boundary along this frontier by the commissioners appointed, duly authenticated. It would be very desirable, indeed, if a sufficient number of the maps alluded to, to supply the border counties, (of which there are five,) each with one, to be deposited among the records of the highest court of law in each of those counties, were transmitted; but that in any event, the office of the secretary of state, of this state, be furnished with one of them.

Hoping that these requests may be favorably received, and be deemed worthy of your early consideration,

I have the honor to remain, sir,
With great respect,
Your obedient servant,
WILLIAM WOODBRIDGE.

(Copy.)

DEPARTMENT OF STATE,
Washington, November 23, 1840.

His excellency WILLIAM WOODBRIDGE, *Detroit, Michigan:*

SIR—I have the honor to acknowledge your three communications of the 3d inst. The distribution of the acts of congress being regulated by law, and the state of Michigan having received all the copies to which she is legally entitled, there is no authority by which the department can furnish an additional number. The act for taking the sixth census, makes it the duty of the marshals to file one copy of the several returns, and also an attested copy of the aggregate amount, with the clerks of their respective district, or superior courts, which returns and aggregate statement are, by the amendatory act, to be preserved by the clerks, and to remain in their offices. As

Digitized by Google

a considerable period must elapse before the census can be completed and published under the superintendence of this department, I can only refer you, in the mean time, to the returns, &c., deposited with the clerks of the state courts.

With regard to the boundary, referred to in your letter, it may be observed, that there is but a small portion of it joining the frontier of Michigan, not established. If you request it, authenticated copies will be made and transmitted, of the charts relating to the established boundary, in the department, at the expense of the state of Michigan. The accompanying documents, printed by order of congress, comprises the information possessed by the department, relating to the unsettled portion of the boundary, commencing at the foot of Neebish Rapids.

I have the honor to be, sir,
Your obedient servant,
JOHN FORSYTH.

Letter of John D. Pierce, in relation to the agricultural products of Calhoun county.

(Copy.)

Marshall, November 10, 1840.

Dear Sir—Agreeable to your request, when here, I proceed to give you a statement in regard to the products of this county, and the amount it would be likely to furnish for transportation, were the Central railroad completed. Of the importance of this road, no one can have an adequate conception, who is not somewhat acquainted with the vast capabilities of the interior and western portions of our state. It is not my purpose to enter the fields of conjecture, but to state facts, and conclusions warranted by them. This county contains 460,800 acres. Wheat is the great staple product of the county. According to the returns of the United States marshal, there was upon the ground, in the summer of 1840, 19,940 acres of this grain, the products of which could not have been less than 300,000 bushels. This number of acres is not quite one twenty-third part of the county. Three times this amount would doubtless be sown the coming year, was the railroad to be forthwith constructed. If we reserve 80,000 bushels for seed, and the supply of our population, it being about 10,000, we shall have for exportation 220,000, equal to 50,000 barrels of flour. This alone, at fifty cents the barrel, would give the state, in toll, $25,000. It is my firm conviction, that if the road could be completed to this place, by a year from this time, we could easily furnish it with one hundred thousand barrels for transportation, the year following. This one article would hence pay to the state, at the above named rate, $50,000; large quantities of pork, and other products, would also be added to the

Digitized by Google

above. According to the returns above mentioned, the county raised in 1840, of corn, oats, barley and potatoes, 480,019 bushels. Thus far I have said nothing of importations, and the probable amount to be derived from them, and the fare of passengers. But suppose $50,000 to be all the county would pay for all articles of export and import. This sum alone would pay at six per cent, the interest on $800,000, while the road itself, through this county, or from Jackson to this place, could not cost to exceed $350,000. It may be asked, can you *flour* such an amount of wheat, if raised? We have already in operation, thirty-two run of burr stones, and six more to be put in the mills now built. Twenty-five barrels per day, is certainly a moderate estimate. Suppose the thirty-eight to be in motion only sixty days in the spring, and the same time in the fall season, and the product would be 114,000 barrels of flour. The water power of this county alone, is capable of flouring all the wheat that can be raised in five such counties, and then be time to spare for other purposes. I hardly need to add, that the people of this section feel a deep interest in this great work, and that they rely with confidence, upon your recommending such a course as will secure its immediate and successful prosecution.

Respectfully, your obedient servant,

JOHN D. PIERCE.

His excellency WILLIAM WOODBRIDGE, *Governor of Michigan:*

We, the undersigned, fully concur in the foregoing statement of Mr. Pierce.

(Signed,) ISAAC E. CRARY,
SIDNEY S. ALLCOTT,
MARVIN PRESTON,
JOSEPH C. FRINK.

Marshall, November 10, 1840.

[No. 2.]

Annual report of the Auditor General.

AUDITOR GENERAL'S OFFICE,
Detroit, December 20, 1840.

The undersigned respectfully submits to the legislature, the following report:

By a joint resolution of the legislature, at its last session, "the auditor general was required to open a set of books, exhibiting the appropriations made by the legislature, from the period of the organization of this state, together with the payments thereon." From a slight examination, it was found that many of the fiscal transactions of former years had not been

Digitized by Google

entered upon the books of this office, and that but few vouchers for the warrants which had been issued, had been retained. It had been the practice to pass the voucher, with a warrant written upon it, into the hands of the treasurer, thus leaving this department destitute of the evidence of payment. In order to carry into effect the foregoing resolution, it becomes necessary to transcribe the former books, as well as the books of the treasurer, and also to examine all the files of both offices.

It was also deemed essential to a correct exhibition of the finances of the state, to open a set of auxiliary books for this office, showing the sources from which the revenue is derived, and the objects for which the same is applied.

Some progress had been made previous to the adjournment of the legislature; but in consequence of the increased amount of labor imposed upon this department, it became necessary wholly to suspend the work until late in the season. The consequence has been, that sufficient time had not been found for so thorough a reëxamination of the books as was desired. It is, however, believed that no error will be found in a future review, which will hereafter be made, materially to vary the result.

The settlement of claims against the state, heretofore suspended for want of appropriations; the return of another year's delinquent taxes; the adjustment of the accounts of the several county treasurers, together with the numerous applications for statements of taxes due, rendered necessary not only the suspension of the work, as above stated, but also the increase of the number of clerks, beyond the limit fixed by law. The claims for this additional service have been paid from the contingent fund, upon the order of the governor, and will be by him accounted for.

The treasury had been overdrawn, at the commencement of the fiscal year, excluding the amount which had been deposited in the state bank, $58,037 06.

The receipts for the year amount, as per abstract No. 1, to	$1,203,448 83
The payments and transfers amount, as per abstract No. 2, to	1,143,015 80
Leaving in the treasury the sum of	$2,395 97

Before proceeding to give a view of the several funds, it is proper to remark, that the balances stated in the last annual report, vary from those stated in this, in consequence of the fact that several items which were improperly charged to one fund, have been transferred to another in the new books; warrants to nearly the amount of the deficit in the bank fund, had been entered in the general fund.

But the principal variation arises from the deduction of the sum of $489,365 81, the amount stated in the former report,

Digitized by Google

as deposited in the Michigan state bank, from the funds; the same having been adjusted by the commissioners appointed for that purpose by the act of April 1, 1840.

The aggregate balances, now reported, do not vary in any other particular from those contained in the last report.

The general fund was overdrawn at the commencement of the fiscal year,	$2,987 59
The receipts of the year amount, as per abstract A, to	114,000 57
	$111,012 98
The payments and transfers, as per abstract B, to	141,485 34
Leaving a deficit of	$30,472 34

By reference to a statement of the balances No. 3, thus deducted for deposits in the State bank, it will be seen that this fund was overdrawn $21,161 43. The effect of this is to diminish the internal improvement fund to the same amount.

If from the payments made during the year on account of *this fund*, a sum be subtracted equal to the amount paid for appropriations previously made, and for prëexisting claims authorized to be paid by the laws of the last session, the remainder will constitute the actual expenditures of the year. I have no means of ascertaining precisely this amount, but have sufficient data to show that the expenditures of the year have fallen somewhat short of $75,000.

In estimating for the expenses of the year, no notice was taken by my predecessor of these balances, or of the numerous outstanding claims against the state.

In estimating for the future year, I have presented all the balances due by virtue of appropriations heretofore made, and have assumed that claims of no great amount exist unliquidated against the state, which will be chargeable to this fund.

The bills for printing, so far as the "rates are fixed by law," and the work has been done by order of the legislature, have been paid. I have therefore, stated in my estimate of expenditures, which will be found in the appendix, marked No. 4, the sum of $10,000 as the maximum for outstanding claims.

The estimated amount of receipts for specific taxes, is $8,000, which, deducted from the amount as above stated, leaves the sum of $91,624 92 to be provided for, in addition to the present deficit.

It must be apparent, however, that the accuracy of this estimate will depend much upon the length of the session of the legislature, and upon the sums which may be appropriated during its session.

Digitized by Google

The internal improvement fund was overdrawn at the commencement of the fiscal year, $69,531 33
The receipts of the year amount, as per abstract C, to 953,893 26

$884,361 93
The payment and transfers " " D, 906,642 21

Leaving a deficit of $21,280 28

To meet this deficit and such outstanding claims as may be presented, there remains the sum of $102,812 50, the residue of the April instalment.

Under the provisions of the law of last session, "authorizing the anticipation of certain instalments of the five million loan," I have issued to the Bank of Michigan, drafts for the aggregate sum of $605,455 00

The amount reserved for interest on the state stocks, is 327,470 00

Leaving the above balance of 102,812 50

I also sent forward a draft for that portion of the loan due by the Morris canal and banking company, which was protested and returned unpaid.

All the claims against the state on account of this fund, have been paid on presentation, so far as appropriations were made. Numerous estimates have been presented by contractors and others, upon the Southern and Central roads, since the appropriations were exhausted, which have not been audited. Of the amount of these estimates I can form no very accurate opinion.

In estimating, however, for this branch of the public service, I have assumed that $200,000 will be required for these estimates, and to discharge the state from liabilities for damages and for right of way; and that the sum of $30,000 must be added to the balance now remaining in favor of the Clinton and Kalamazoo canal, for the same purpose, making the sum of $230,000 00

There remains due upon the iron contract, *60,000 00

The aggregate of the unexpended appropriations, as stated in abstract No. 5, is $287,120 31

From which should be deducted the balances due from two of the commissioners, to wit:

L. S. Humphrey,	$30,115 40	
Rix Robinson,	5,911 66	
		36,027 06
		251,093 25

Making an aggregate of $541,093 25

* This sum is stated at $66,000 00, by the late board of commissioners.

Digitized by Google

The amount which will be received into the treasury on account of this fund, may be stated as follows:		
Balance of the April instalment,	$102,812 50	
From which deduct the present deficit of	21,280 28	
		$81,532 22
Amount of the first four instalments due from the United States bank,	$879,375 00	
From which deduct the amount which will be retained for interest,	319,400 00	
		559,975 00
		$641,507 22
From which deduct the above sum of		541,093 25
		$100,403 97
To this may be added the sum of $49,684 51 as available for the year, for two warrants issued to J. Q. Adams and Joel Clemens, the former payable January 1, 1843, for $32,500, the latter payable out of the assets received of the State bank, for $17,686 51,		49,686 51
Leaving a surplus of		$150,100 48

Should it be necessary to transfer from this fund, the sum estimated for the general fund, there will be but a small surplus in the treasury at the end of the year. If, however, some portion of the unexpended appropriations should be brought again into the treasury, means to that amount would be had to prosecute those branches of the public works which it is desirable to finish.

I have prepared a table, No. 6, exhibiting the aggregate amount of the remaining instalments of the five million loan, to which I have added all the amounts due to the fund upon the books of the office.

The receipts for tolls upon the Central railroad during the year, amount to	$59,140 14
Of which there has been paid for expenses,	40,973 67
Leaving a surplus of	$18,166 47

The sum of $16,486 47 has been paid into the treasury to the credit of the sinking fund, and transferred to the internal improvement fund; the sum of $348 48, remains due from Thomas Clarke, collector, and the residue is in the hands of the commissioner.

The sum of twenty thousand dollars, directed to be transferred from the internal improvement fund to the credit of the

Digitized by Google

state prison fund, has been paid to the commissioner of the building department. His accounts have been rendered and audited to the 14th instant, for the sum of fifteen thousand dollars, since which time he has received the remainder, to be accounted for hereafter. His report, with that of the agent of the prison, will be found hereto appended.

The amount in the treasury, to the credit of the university and primary school fund, at the commencement of the year, was $4,756 40

The receipts of the year amount to 27,210 23

$31,966 63

And the payments, to 28,650 99

Leaving a balance now in the treasury, of $3,315 64

I regret my inability, without the aid of the superintendent of public instruction, to designate the particular funds to which this sum should be applied. With the view of having the funds correctly entered upon the books of this office, the house of representatives passed a resolution at its last session, authorizing the auditor general and state treasurer to examine the books and papers of the superintendent, a copy of which was transmitted to him, with a request that he would designate a time when it would be convenient to him to attend the examination. To this no reply was received, (in consequence of his illness, as I have since learned,) until the absence of the treasurer prevented any further action in the matter.

The balance in the treasury, to the credit of the delinquent tax fund, at the date of the last report, was $16,894 85

The receipts for the year amount, as per abstract E, to 90,904 15

$107,799 00

The payments, as per abstract F, to 56,629 83

Leaving in the treasury, $51,169 17

In addition to the above receipts, the sum of $1,131 80, has been received and passed to the credit of the several counties, being one-half of the office charges as established by the law of last session. The balances due to and from the several counties, were ascertained; and the sum in the treasury, on the first of July last, distributed. For the remainder, bonds have been issued to the amount of $120,400, as set forth in abstract No. 7 of the appendix. Circulars have been addressed to each of the county treasurers, proffering to pay, on presentation, the first and second series, some portion of which has already been paid. Funds sufficient to pay the remaining bonds, will doubtless be collected during the year, and it will be my duty

Digitized by Google

to anticipate the payment of them whenever the means are in the treasury, if the present law is not modified or repealed. I respectfully submit to the legislature the propriety of authorizing some portion of the future receipts to be applied to the relief of the general fund.

An abstract of the remaining funds, No. 8, will be found in the appendix, to which I refer, with the remark, that provision should be made for the balance standing against the bank fund, as there is no probability that the receipts of the year will be sufficient to liquidate this amount.

The returns of delinquent taxes for the year 1838, are	$99,961 51
For 1839,	191,082 64
	$291,044 15

Of this amount, nearly one-third part has been collected; a large portion of which was received in the months of June, July and August. For the transaction of this business, it became necessary to apply the entire labors of the clerks allowed the department by law, and frequently to employ one, and sometimes two, more, leaving all the other branches of the business to be discharged by myself. I deem it due to the persons employed, to say, that they have consented to labor at unseasonable hours, and sometimes at the sacrifice of health. I cannot too strongly recommend that authority be lodged *somewhere*, to employ a competent number of clerks to transact the business of the office, which, in consequence of the returns of taxes for collection, is annually increasing.

The state having assumed the payment to the counties, of all the delinquent taxes heretofore returned to this office, the uncollected balance constitutes the only means which have been provided for the extinguishment of the public debt which was not designed specially for internal improvements.

This debt may be stated as follows:

Bonds issued May, 1836, payable May, 1856,			$100,000 00
do July, 1839,	do July, 1859,		31,000 00
do July, 1840,		$120,400 00	
Deduct amount on hand, say,		51,000 00	
			69,400 00
Penitentiary bonds, April 1, 1838, payable January, 1839,			20,000 00
do do February 1, 1839,		do January, 1840,	40,000 00
			$240,000 00

Carried forward, $

Digitized by Google

Brought forward,	$
To which add the amount of transfers from the internal improvement fund,	280,000 00
	$540,000 00
Deduct taxes uncollected,	192,000 00
	$348,000 00

Which leaves a balance of three hundred and forty-eight thousand dollars, for which no provision has been made. Under our present system, the expenditures far exceed the amount of receipts, so that this debt is annually increasing. The amount assessed for the year 1838, was $85,906 97, while the expenditures were $168,485 09. The amount for 1839, was $92,385 43, and the expenditures $160,368 92, leaving also a large amount due for outstanding claims. The assessments for the present year, have fallen to $75,666 04, in consequence of the diminished valuation, while the estimate amounts to $91,624 92. I do not now stop to inquire, how much of this excess has been paid by receipts from other sources, as it is sufficient to show that during the first four years of our state government, a debt of nearly $400,000 has been created beyond the means provided for its redemption. No argument is required to prove that without a radical change in our financial system, this evil must increase.

In attempting to discharge that part of my duty, which requires the auditor general "to report such changes in the financial system of this state, as in his opinion may be expedient, and may tend to a more economical course of disbursements," I am admonished by the complaints continually made of the amount of taxes already assessed, not to recommend an increase of that which is considered oppressive.

My attention has first been directed to the inquiry, whether any portion of the disbursements from the treasury can be dispensed with; but with the exception of the trifling amount paid for the inspection of brigades, which might well be paid from military fines, and so much as would be saved by a reduction of the sum paid for bounty on wolves, I see nothing which can materially lessen the demands upon the treasury.

The only alternative then, in my judgment, is to replenish the treasury by adding to the amount assessed for the state, so as to secure a sum sufficient to meet the demands upon it, and to reduce the amount levied for other purposes.

I have prepared a table (No. 9,) from the returns of delinquent taxes for the year 1839, from which it appears that the amount assessed for the state, varies from 40 cents to 59 cents upon each eighty acre lot, while that for the counties, varies from 65 cents to $2 52; and the road taxes, from $1 20 to $5 60.

Digitized by Google

If the largest amount which has been assessed upon any one lot, be taken as the average upon the entire valuation of the property of the state, the result would show an aggregate of nearly two and a half millions of dollars; and if to this be added the highest amount of school tax, ($12 26,) the sum would be increased to more than four millions eight hundred thousand dollars.

I am aware that, by the operation of the laws of last session, the assessments for the present year will be much reduced; but, by the provisions of those laws, a road tax can be assessed equal to three-fourths per cent upon the valuation. This sum alone, upon the fifty thousand lots returned for 1839, and which chiefly belong to non-residents, if valued at the present rates, will produce about ninety thousand dollars. It must be obvious, therefore, that the laws allowing so high an assessment for road taxes, might be so modified as to secure the desired result.

My attention has frequently been directed to several provisions of the statutes, during the past year, providing for the assessment and collection of taxes, which have been variously construed; and, from the difficulties which have arisen in consequence of these conflicting opinions, I am induced to recommend a revision of the whole system. The laws which had been in operation several years, were repealed by the revised statutes, with certain exceptions, which have been frequently misapprehended. The "act to provide for the assessment and collection of taxes for the year 1838, approved April 19, 1839, revives the former laws, so far as they relate to the collection of taxes for the years 1836 and 1837, by the county treasurers, without making any provision for the sale of those lands, which, under certain regulations, were authorized to be returned to this office.

The returns of taxes for 1836 and 1837, have been made by one county only. These remain unsold, while those for the same years have already been sold in the other counties. It is doubted whether a sale can be made under the provisions of the revised statutes, without further legislation. Section fourteen of the same law, has been construed to a considerable extent, to repeal the provisions of the revised statutes, levying a state specific tax upon merchants and others, and allowing one to be collected for the use of the counties. Several counties have refused either to make returns to this office, or to pay over the amount when collected, to the treasurer. Efforts have been made to induce a compliance with the terms of the law, and in most instances they have been successful. There are, however, one or two counties which have not complied with the requisition.

Many of the county treasurers have retained five per cent

Digitized by Google

of the amount of specific taxes collected by them, for their services. Upon referring them to the law which provides that the county commissioners shall compensate them for "*all their services*," the amount has been, in most instances, returned to the treasurer; some cases, however, yet exist, where payment has been declined. In the absence of any express authority to enforce collection in these cases, I refer the matter for the consideration of the legislature.

The laws, however, providing for the assessment and collection of school taxes, have been the chief cause of these difficulties. The assessments, as well as the returns have been made without any reference to the time, which is, perhaps, obscurely fixed by law; and the consequence has been, that many of the returns for the assessments of 1838, which were not presented at the office until 1840, and many of those of 1839, which were not assessed at the time fixed by law, have been rejected.

The revised statutes prescribe, that the lands hereafter to be offered for sale, shall be advertised sixteen weeks previous to the first day of June; that after the first day of January, the auditor general shall proceed to make the settlements, cast up the interest, investigate the validity of the assessments, &c., &c. A mere reference to the amount of labor involved in preparing the returns from about thirty counties, within a period of thirty days, is sufficient to show the necessity of some modification of this provision.

In recommending a revisal of these laws, I would respectfully suggest, that the provision which requires a sale at the end of three years be discontinued, and that when returned, they be held subject to payment the first two years, by the addition of fifteen per cent interest, the third year with the addition of fifty per cent upon the amount returned, and the fourth year of one hundred per cent, during which year they be advertised as forfeited to the state, if the amount is not paid. This will save the expense of a sale and the litigation which generally follows; and so far as any lands should be acquired by the state, they might be pledged for the redemption of the public debt.

The commissioners appointed at the last session of the legislature, placed the debts and property received of the Michigan state bank, in charge of this office.

In consequence of my arduous and pressing duties, I have not been able to prepare a detailed report on this subject, but it will hereafter be made the subject of a special communication.

All of which is respectfully submitted.

E. P. HASTINGS, *Aud. Gen.*

Digitized by Google

(A.)

Abstract of receipts on account of General Fund.

Rent of lot in Macomb county,		$00 75
Internal improvement fund,		100,000 00
Specified taxes, to wit:		
Sales at auction,	$22 37	
Bank specific taxes,	630 00	
Peddlers' licenses,	420 59	
Merchants' licenses,	9,803 17	
		10,876 13
Jonas H. Titus, agent, returned,		49 44
University returned, interest advanced,		3,000 00
		$114,000 57

(B.)

Abstract of payments on account of General Fund.

Insurance of capitol,	$96 00
Rent of auditor general and treasurer's office,	82 00
Packing books, for distribution of laws,	75 00
Wood for legislature,	41 25
Appropriation to sundry persons, April, 1838,	14 50
do do do 1839,	239 95
do do do 1840,	25,582 79
Legislature of 1839,	6 00
do 1840,	24,962 85
Salaries of public officers,	14,479 53
Brigade inspector,	80 00
Postage of auditor general and treasurer's office,	241 72
Detroit canvassers,	341 44
Interest on general fund and state prison stocks,	9,200 00
Messengers,	565 87
Fugitives from justice,	1,904 75
Expense of courts, chancery and supreme,	550 22
Witness—George Morell's case,	22 56
Wolf bounties,	1,938 60
Witnesses, 1839, for appropriations,	105 37
Fund commissioners,	1,472 03
Clerks to auditor,	1,040 28
Clerks to treasurer,	311 11
Furniture for auditor general and treasurer's office,	114 25
Witnesses before court of investigation of Northern and Southern railroad,	9 00
Carried forward,	$

Digitized by Google

Brought forward,		$
Maps to Doctor Houghton,		500 00
State printer,		10,406 90
Expenses of state prison,		3,277 89
Jonas H. Titus, agent,		6,500 00
State prison buildings,		14,522 68
D. Adams, agent,		7,800 00
Transferred to account of geological survey, as per appropriation,	$12,000 00	
do to library,	1,000 00	
do to contingent fund,	2,000 00	
		15,000 00
		$141,485 34

(C.)

Abstract of receipts on account of Internal Improvement Fund.

The following drafts in favor of the bank of Michigan:

Draft payable April 1, 1840, on account general fund,	$100,000 00	
Balance of April instalment,	101,562 50	
Balance of July instalment,	42,490 00	
October instalment,	207,187 50	
Balance January instalment,	44,415 00	
On account of April instalment,	113,700 00	
		$609,355 00
Drafts favor W. Truesdail, cashier,		242 59
do sinking fund, to wit:		
For interest on public stocks, due January 1, 1840,	$151,325 00	
For interest on public stocks, due July 1, 1840,	161,885 00	
		313,210 00
Received of United States, for 5 per cent on land sales,		14,107 53
Amount returned by William R. Thompson, commissioner,		291 67
		$937,206 79
Amount received to credit of sinking fund for receipts on Central railroad,		16,686 47
		$953,893 26

Digitized by Google

(D.)

Abstract of payments on account of Internal Improvement Fund.

Transfers, viz:		
To credit of general fund,	$100,000 00	
state prison fund,	20,000 00	
sinking fund,	313,210 00	
expenses of running Central railroad,	227 62	
		$433,437 62
Warrants drawn in favor sinking fund, discount on sundry drafts sold Bank of Michigan,	15,899 16	
do Levi S. Humphrey, commissioner,	152,825 90	
do Rix Robinson, do	6,281 66	
do iron contract,	3,527 20	
do improvement St. Joseph river,	2,268 67	
do W. R. Thompson, commissioner,	53,407 16	
do improvement of Grand and Kalamazoo rivers,	1,080 70	
do contingent expenses of board of commissioners,	798 80	
do Saginaw canal,	14,145 84	
do Northern railroad,	5,656 72	
do Central railroad,	35,596 75	
do Southern railroad,	856 58	
do board of appraisers,	959 50	
do Joel Clemens,	17,686 51	
do River Raisin and Lake Erie railroad company, payable January 1, 1843,	32,500 00	
do Clinton canal,	128,713 44	
		472,204 59
		$905,642 21

(E.)

Delinquent Tax Fund.

The amount of receipts into the treasury are,		
Taxes collected,	$80,265 21	
Charges do	1,755 51	
Interest do	7,079 47	
Balances collected from counties,	1,803 96	
		$90,904 15

Digitized by Google

(F.)

The payments have been,		
Amount paid counties,	$53,069 36	
Paid bonds due January 1,	1,900 00	
Interest on do	27 85	
Interest on stocks, $31,000, July, 1842,	1,085 00	
Amount returned by treasurer for amount erroneously entered to credit,	402 35	
Amount refunded for twice paid,	145 27	
		$56,629 83

—

(No. 1.)

Abstract of receipts into the treasury.

Receipts, No. 1.		
General fund,		$114,000 57
Delinquent tax fund,		90,904 15
Fund for state buildings,		950 20
Bank fund,		280 00
School fund,		27,210 23
Fund for counties,		1,131 80
Internal improvement fund,		937,206 79
Geological survey, transfer,		12,000 00
Library, "		1,000 00
Contingent fund, "	$2,000 00	
" " received,	78 62	
		2,078 62
Sinking fund for running cars,		16,686 47
		$1,203,448 83

—

(No. 2.)

Abstract of payments.

General fund warrants,	$126,485 34	
" " transfers,	15,000 00	
		$141,485 34
Delinquent tax fund,		56,629 83
Geological survey,		7,161 37
Library,		21 00
Bank fund,		187 51
Carried forward,		$

Digitized by Google

	$
Brought forward,	
School fund,	28,650 99
Internal improvement fund,	905,642 21
Contingent fund,	2,805 10
" " by governor Mason,	432 45
	$1,143,015 80

(No. 3.)

Abstract of deposits in Michigan State Bank.

Balance to credit of internal improvement fund,	$437,432 96	
" Primary school fund,	1,568 64	
" to credit of Allegan and Marshall railroad,	60,000 00	
Contingent fund,	1,175 64	
John D. Pierce, superintendent public instruction,	10,350 00	
		510,527 24
Balance to debit of general fund,		21,161 43
		$489,365 81

(No. 4.)

Estimate of expenditures for the year 1841.

Due sundry persons on account, Nov. 14, 1835,	$68 54
" " " " " March 28, 1836,	8 04
" " " " " July 26, 1836,	78 01
" " " " " March 23, 1837,	255 75
" " " " " June 22, 1837,	222 65
" " " " " Dec. 30, 1837,	41 38
" " " " " April 6, 1838,	182 53
" " " " " April 19, 20, 1839,	1,115 99
" " " " " April, 1840,	70 59
Balance of appropriation for witnesses before committee of investigation,	156 44
Interest on stocks, for $100,000,	6,000 00
" penitentiary stock, $60,000 00,	3,600 00
Contingent fund,	2,000 00
Library,	1,000 00
Other outstanding claims,	10,000 00
Carried forward,	$

Digitized by Google

	$
Brought forward,	
Legislature, including printing,	40,000 00
State prison expenditures,	15,000 00
Salaries to public officers,	16,325 00
Wolf bounties,	1,500 00
Miscellaneous,	2,000 00
	99,624 92
Add deficit in the treasury,	30,472 76
	$130,097 68

(No. 5.)

Table of unexpended appropriations on account of Internal Improvement Fund.

Southern railroad,	$29,817 64
Northern railroad,	79,105 66
Clinton canal,	28,758 34
Saginaw canal,	25,355 68
Havre branch railroad,	19,089 16
Ste Marie canal,	46,958 14
Improvement of Grand and Kalamazoo rivers,	10,434 89
Improvement St. Joseph river,	22,731 33
Canal around Grand Rapids,	24,869 47
	$287,120 31

Abstract of instalments due from the United States bank on account of five million loan.

Balance of April instalment,		$102,812 50	
Less amount overdrawn on internal improvement fund,		21,280 28	
			$81,532 22
July instalment,		215,625 00	
Less amount retained for interest,	$150,000 00		
do Detroit and Pontiac railroad company,	3,000 00		
do Allegan and Marshall railroad co.,	3,000 00		
do Ypsilanti and Tecumseh railroad co.,	3,000 00		
do Palmyra and Jacksonburg railroad co.,	700 00		
		159,700 00	55,925 00
Carried forward,		$	$

Digitized by Google

Brought forward,			$
October instalment,			218,437 50
January instalment, 1842,		221,250 00	
Less amount of interest retained as above,		159,700 00	
			61,550 00
April, 1842, instalment,			224,062 50
July, 1840, do		226,875 00	
Less amount interest as above retained,		159,700 00	
			67,175 00
October, 1842, instalment,			229,687 50
			$938,369 72
January, 1843, instalment,		186,000 00	
Less interest as above retained,	$159,990		
Warrants favor of J. Q. Adams,	32,500		
		192,200 00	
			6,200 00
			$932,169 72

Due to the internal improvement fund from the following sources:

Detroit and Pontiac railroad Dr. for interest,	$12,000 00
Ypsilanti and Tecumseh do do for interest,	9,000 00
Palmyra and Jacksonburg do do for interest,	1,400 00
Bank of Gibralter,	20,000 00
James B. Hunt, commissioner,	2,050 63
E. S. Lathrop, do	625 13
L. S. Humphrey, do	30,115 40
Rix Robinson, do	5,911 66
W. R. Thompson, do	6,736 85
	$87,839 67

Digitized by Google

(No. 7.)

Abstract of Bonds issued, June 30th, to the several Counties.

Counties.	BONDS BECOME DUE.						Total.
	January 1, 1841.	July 1, 1841.	January 1, 1842.	July 1, 1842.	January 1, 1843	July 1, 1843.	
Allegan,	$900 00	$1,000 00	$1,000 00	$600 00	$800 00	$700 00	$5,000 00
Branch,	500 00	500 00	500 00	300 00	300 00	300 00	2,400 00
Berrien,	800 00	900 00	900 00	500 00	700 00	600 00	4,400 00
Barry,	900 00	1,000 00	1,300 00	800 00	1,000 00	900 00	5,900 00
Calhoun,	500 00	600 00	600 00	600 00	260 00	200 00	2,760 00
Cass,	400 00	400 00	400 00	200 00	200 00	200 00	1,800 00
Clinton,	1,100 00	1,200 00	1,200 00	1,000 00	900 00	700 00	6,100 00
Eaton,	1,500 00	1,600 00	1,600 00	1,100 00	1,200 00	1,300 00	8,300 00
Genesee,	900 00	1,000 00	1,000 00	500 00	800 00	700 00	4,900 00
Hillsdale,	900 00	900 00	1,200 00	1,000 00	1,200 00	1,100 00	6,300 00
Ionia,	700 00	800 00	800 00	500 00	600 00	500 00	3,900 00
Ingham,	1,400 00	1,500 00	1,500 00	900 00	1,100 00	1,100 00	7,500 00
Jackson,	800 00	900 00	900 00	500 00	700 00	600 00	4,400 00
Kalamazoo,	110 00	110 00	110 00	110 00	110 00	110 00	660 00
Kent,	700 00	700 00	700 00	400 00	500 00	500 00	3,500 00
Livingston,	600 00	900 00	600 00	360 00	440 00	300 00	2,740 00
Lenawee,	200 00	200 00	200 00	100 00	140 00	100 00	940 00
Lapeer,	1,600 00	2,000 00	2,000 00	1,600 00	1,000 00	980 00	9,180 00
Monroe,	1,100 00	1,300 00	1,300 00	900 00	900 00	900 00	6,400 00

Digitized by Google

Macomb,	300 00	400 00	400 00	100 00	200 00	200 00	200 00	1,600 00
Oakland,	400 00	400 00	400 00	120 00	300 00	300 00	300 00	1,920 00
Ottawa,	200 00	300 00	300 00	100 00	300 00	200 00	200 00	1,400 00
St. Clair,	1,100 00	1,200 00	1,200 00	800 00	600 00	400 00	400 00	5,200 00
Shiawassee,	1,300 00	1,500 00	1,400 00	1,000 00	1,100 00	1,000 00	1,000 00	7,300 00
Saginaw,	600 00	600 00	600 00	400 00	500 00	400 00		3,100 00
St. Joseph,	100 00	100 00	100 00	100 00	100 00			500 00
Van Buren,	1,400 00	1,500 00	1,500 00	900 00	1,200 00	1,100 00		7,600 00
Wayne,	800 00	900 00	900 00	700 00	700 00	700 00		4,700 00
	$21,610 00	$24,110 00	$24,610 00	$16,130 00	$17,850 00	$16,090 00	$120,400 00	

Digitized by Google

(No. 8.)

Geological Survey.

Balance on hand, Nov. 30, 1839,	$2,644 05	
Appropriations from general fund,	12,000 00	
		$14,644 05
Warrants drawn on account of this fund,		7,161 37
Balance in treasury,		$7,482 68

Library.

Balance in treasury, Nov. 30, 1839,	$1,186 39	
Appropriations from general fund,	1,000 00	
		$2,186 39
Warrants drawn on treasurer,		21 00
Balance,		$2,165 39

Fund for State Buildings.

Amount in treasury, Nov. 30, 1839,	$449 75	
Amount received,	950 20	
		$1,399 95

Bank Fund.

Balance overdrawn, Nov. 30, 1839,	$4,205 49	
Amount warrants drawn on treasurer,	187 51	
		$4,393 00
Less amount received,		280 00
Amount now overdrawn,		$4,113 00

Contingent Fund.

CR.

By balance in treasury Nov. 30, 1839,	$1,237 55	
" appropriation from general fund,	2,000 00	
		$3,237 55

1839. DR.

Dec. 27. To vouchers returned by Gov. Mason, for payments to Henry L. Whipple, clerk to auditor general,	$83 33	
To warrant favor John M. Chase, clerk to auditor general,	83 33	
Carried forward,	$	$

Digitized by Google

	Brought forward,	$		$
1840.				
Jan. 3.	To warrant favor J. S. & S. A. Bagg,		45 63	
7.	" 2 do favor Detroit post-office,		120 04	
11.	" do favor E. Bingham,		75	
	" do do Aymar & Shaw,		34 50	
18.	" do favor H. N. Strong,		40 00	
	" do favor P. Desnoyers,		24 87	
April 20.	" deposited in bank to credit of governor Woodbridge, $805 10			
June 30.	" warrant to do 1,000 00			
Nov. 30.	" do do 1,000 00			
			2,805 10	
				$3,237 55

Digitized by Google

(No. 9.)

Names of Counties.	Number of acres.	Average of State tax per eighty acre lot	Average of county and town tax per eighty acre lot.	Average of road tax per eighty acre lot, on amount returned for road tax.	Average of school tax per eighty acre lot, on am't returned as school tax.	Total.
Allegan,.....	259,325	$00 52	$1 40	$1 37		$3 29
Branch, ...	124,350	56	91	2 77	$3 02	7 26
Barry, ...	190,000	42	78	2 25	3 37	6 82
Berrien,.....	125,350	53	1 66	1 20	3 51	6 90
Cass, ...	91,875	44	1 39	1 36	3 39	6 58
Calhoun,.....	56,600	56	1 29	2 26	5 83	9 94
Clinton, ...	162,690	48	1 40	3 39	3 88	9 15
Eaton, ...	175,520	43	1 72	4 02	3 61	9 78
Gratiot, ...	2,400	40	80			1 20
Genesee, ...	113,440	46	1 79	2 85	19	5 29
Hillsdale,....	189,280	51	1 13	4 11	2 42	8 17
Ingham,.....	194,480	48	1 51	5 60	1 34	8 93
Ionia, ...	157,200	40	1 50	2 50	3 42	7 82
Jackson,.....	151,280	54	2 20	3 49		6 23
Kent, ...	106,160	58	2 04	2 72	6 05	11 39
Kalamazoo,..	125,280	50	71	3 08	4 31	8 60
Lapeer, ...	188,720	45	65	3 38	3 80	8 28
Lenawee,....	139,360	53	1 01	2 43	3 28	7 25
Livingston,...	135,440	48	92	3 39	1 22	6 01
Macomb, ...	64,640	44	1 76	3 13	3 13	8 46
Midland,.....	19,640	40	80	1 25		2 45
Monroe,.....	161,080	45	1 33	4 91	1 37	8 06
Ottawa, ...	51,520	48	1 37	1 28		3 13
Oakland,.....	45,760	41	1 12	2 33	1 02	4 88
Saginaw, ...	109,360	42	78	1 25		2 45
Shiawassee,..	178,200	48	1 21	4 71	3 94	10 34
St. Clair,.....	232,000	40	1 19	2 67		4 29
St. Joseph,...	72,560	59	1 57	1 42	7 74	11 32
Van Buren,..	212,960	45	1 12	1 38	4 73	7 68
Washtenaw,..	58,000	52	2 52	4 49		7 53
Wayne, ...	91,480	48	1 33	4 75	6 98	13 54
Total,	4,086,310					

Digitized by Google

Levi S. Humphrey, Commissioner.

Balance, November 30, 1839,	$122,776 23	
Warrants issued,	152,825 90	
		$275,602 13
CR.		
By vouchers audited on account of		
Southern railroad,	$192,138 63	
do survey of railroad to Niles,	71 25	
do Havre branch railroad,	211 46	
do surveys and instruments,	29 07	
do Clinton canal,	52,036 32	
		245,486 73
		$30,115 40

Rix Robinson, Commissioner.

Balance, November 30, 1839,	$5,839 97	
Warrants issued,	6,281 66	
		$12,121 63
CR.		
By vouchers rendered and audited, on account of improvement of		
Grand river,	$393 86	
do Northern railroad,	5,116 84	
do Saginaw canal,	241 67	
do Saut Ste Marie canal,	88 93	
Cash returned,	368 67	
		6,209 97
		$5,911 66

Abstract of payments out of Internal Improvement Fund, November 30, 1840.

Southern railroad,	$520,182 36
Central railroad,	893,897 00
Northern railroad,	70,894 34
Clinton and Kalamazoo canal,	276,241 66
Saginaw canal,	36,644 32
Havre branch railroad,	910 84
Saut Ste Marie canal,	3,041 86
Improvement of Grand and Kalamazoo rivers,	27,563 11
Improvement of salt springs,	18,000 00
Improvement of St. Joseph river,	2,268 67
Carried forward,	$

Digitized by Google

	$
Brought forward,	
Canal around Grand river rapids,	130 53
Surveys and instruments,	36,467 74
Expenses of negotiating loan,	2,322 01
Contingent expenses of board of commissioners,	10,170 41
Bank of Gibralter,	20,000 00
Iron contract,	111,925 80
Board of appraisers for 1840,	624 00
Sinking fund, including amount returned out of January instalment,	646,915 66
	$2,678,202 31

Assessment, 1840.

Counties.	Valuation.	Rate.	Amount.
Allegan,	$748,120 48	½ of one cent,	$1,496 24
Branch,	991,681 00	do	1,983 36
Berrien,	898,521 00	do	1,797 04
Barry,	565,086 00	do	1,130 17
Calhoun,	1,764,896 00	do	3,529 79
Cass,	1,028,036 52	do	2,056 07
Chippewa,	47,220 00	do	94 44
Clinton,	632,729 00	do	1,265 46
Eaton,	666,305 63	do	1,332 61
Genesee,	997,149 82	do	1,994 30
Hillsdale,	1,266,309 00	do	2,532 62
Ionia,	585,148 53	do	1,170 30
Ingham,	752,847 00	do	1,505 69
Jackson,	1,662,318 00	do	3,324 64
Kalamazoo,	1,338,558 00	do	2,677 11
Kent,	813,628 50	do	1,627 26
Livingston,	1,118,498 00	do	2,237 00
Lenawee,	2,449,311 00	do	4,898 62
Lapeer,	1,006,983 88	do	2,013 97
Monroe,	1,736,096 22	do	3,472 19
Macomb,	1,139,906 57	do	2,279 81
Mackinac,	152,635 00	do	305 27
Oakland,	2,396,226 00	do	4,792 45
Ottawa,	352,372 57	do	704 75
St. Clair,	1,031,276 89	do	2,062 55
Shiawassee,	754,170 08	do	1,508 34
Saginaw,	327,284 75	do	654 57
St. Joseph,	1,059,968 69	do	2,119 94
Van Buren,	454,892 72	do	909 79
Washtenaw,	2,735,401 00	do	5,470 80
Wayne,	6,359,446 28	do	12,718 89
	$37,833,024 13		$75,666 04

Digitized by Google

Report of E. S. Lathrop, Building Commissioner, State Prison.

To E. P. HASTINGS, *Auditor General:*

SIR—In compliance with your request to me, in your note of the 10th November, instant, I respectfully submit to you, the following report of the situation of the works at this place, when I took the superintendence of them, and their present condition, together with a comparative view of the progress of the work in 1839 and 1840:

Under the superintendence of the former commissioner, the walls of the west wing of the prison, extended from the west end of the prison so far as to receive, when completed, one hundred and eighty feet of roof. The front wall was about twelve and one-half feet above the water table, to which there has been added twenty-four and one-half feet, and is completed; making the front wall thirty-seven feet high, besides having been extended so far as to receive the entire roof of the west wing of the building, being two hundred and twenty-three feet.

The west end and rear wall were about three-fourth's built, and have since been completed.

By reference to the report of the former commissioner, it will be seen that it was contemplated to erect a temporary end, so as to inclose about two hundred feet of the west wing. This I did not deem advisable, and consequently the walls have been extended, as above stated, so as to inclose the entire west wing, and there has been built a substantial stone wall at the east end, forming, when the prison is completed, the partition wall between the said wing and the keeper's house. Under the former commissioner, a contract had been entered into for framing and raising one hundred and eighty feet of the roof. The framing was in progress at the time of my taking the superintendence of the building, all of which has been completed by the contractor, in a satisfactory manner; to which there has been added forty-three feet, so as to cover the entire west wing. With a view to render the prison as safe as possible, with the limited amount of means appropriated, the west wall of the yard has been commenced, and extended three hundred and seventy-five feet in length. It is in contemplation to carry this wall about twenty-four feet high, for the purpose of erecting work shops against it, when required for the convenience of the institution. It is now seventeen feet above the surface of the yard.

There has been laid in the building and yard walls the present season, four thousand and eighteen perch of stone, and in the walls of the building, three thousand and three hundred feet of cut stone, sills, jambs, caps, corners and cornice.

It was found, by examination, that the cells erected by the first commissioner, (Benjamin Porter,) were quite unsafe for

Digitized by Google

the object intended, they being covered by a brick arch which was to form the bottom of the next cell above, and might easily be removed by the convicts. Another and more serious objection was, there being no means of ventilation except by the door, which can be viewed in no more favorable light than a gross oversight in the superintendent. It was found that the moisture arising from the breath of the convict, remained in the cell in an inactive state, for the entire day, so that instead of a wholesome, dry and healthy cell for his confinement at night, it was precisely the reverse. These considerations induced the alteration of the cells, so as to have a safe and efficient ventilator, and a stone top in lieu of the brick arch, and the building of all the other cells in the same improved manner. There was one other gain in addition to health and safety in this arrangement, being no less than a saving of four feet in height of the entire building, as also in the block of cells.

Forty-two cells are now completed in the manner above stated, in addition to which, forty more are in a state of forwardness that will insure their completion within the month, making in all an entire tier or story of eighty-two cells, and being one-fourth of what the west wing of the prison will contain.

By reference to the books of the prison, I find that there was

laid, in 1839, of rough stone,		2,190.	perch.
do 1840, do do		3,935½	do
Difference in favor of 1840,		1,745½	
There was laid, in 1839, of cut stone, sills, caps and jambs,		3,738	feet.
do do 1840, do do		3,300	
Difference in favor of 1839,		438	feet.
There was laid, in 1839, of cell stone,		0,000	
do do 1840, do do		5,240	feet.
Difference in favor of 1840,		5,240	feet.
There was laid, in 1839, bricks,		10,000	
do do 1840, do		100,000	
Difference in favor of 1840,		90,000	bricks.
Cash expended in 1839,		$30,393	49
do do to Nov'r 15, 1840,	$15,046 75		
Outstanding claims to do do	1,849 32		
		16,896	07
Difference in favor of 1840,		$13,497	42

All of which is respectfully submitted.

E. S. LATHROP,
Building Commissioner, S. P.

State Prison Office, Jackson, November 16, 1840.

Digitized by Google

State of Michigan, County of Jackson, ss.

Edwin S. Lathrop, building commissioner, and Samuel W. Whitwell, clerk of said prison, severally make oath and say, that the foregoing statement is correct and true in every respect, according to the best of their knowledge and belief.

E. S. LATHROP,
Building Commissioner, S. P.
SAMUEL W. WHITWELL,
Clerk, State Prison.

Subscribed and sworn to, this 16th day of December, A. D. 1840, before me.

WILLIAM R. DELAND,
Notary Public.

—

Recapitulation.

Labor,	$828 27
Transportation,	318 75
Lumber and timber,	563 86
Stone cutting,	1,993 08
Brick laying,	444 96
Pointing,	89 53
Bricks,	590 00
Stone,	3,784 00
Sand,	50 00
Lime,	198 62
Prison roof,	1,083 81
Prison walls,	2,794 57
Yard wall,	324 40
Oils, paints, &c.,	67 61
Iron, nails, copper, &c.,	1,442 61
Coal,	215 73
Oats, hay and corn,	111 90
Sundries,	145 05
	$15,046 75

—

State of Michigan, County of Jackson, ss:

Edwin S. Lathrop, building commissioner, and Samuel W. Whitwell, clerk of the state prison at Jackson, severally make oath and say, that the foregoing statement of account is correct and true, according to the best of their knowledge and belief.

E. S. LATHROP,
Building Commissioner, S. P.
SAMUEL W. WHITWELL,
Clerk, State Prison.

Digitized by Google

Subscribed and sworn to, this 16th day of December, A. D. 1840, before me.

WILLIAM R. DELAND,
Notary Public.

Inventory of property belonging to the state of Michigan, under the control of the Building Commissioner of the State Prison, and on hand the 14th day of November, 1840.

Blacksmith Shop.

Four brick forges; four bellows; four anvils; four sets forge tools; one drilling frame; one lever punch; one patent balance; two vises; one bench; sundry tools for use of do; twenty-nine finished doors for cells; hooks and eyes for one hundred doors; punched bar iron for seventeen doors; one thousand six hundred and twenty-seven lbs. rod iron; twelve thousand nine hundred and ninety-two lbs. bar iron; a quantity of scrap iron; five hundred bushels coal; one pair shears for cutting iron.

Store Room.

One half keg Venitian red; two and one-half kegs nails; one hundred and twelve pounds white lead; three paint brushes; fifteen gallons linseed oil; one half keg spikes.

Barn.

One span horses, harness and wagon; one yoke oxen; two yokes; two chains; one old wagon; one sleigh; one stone boat; one dirt scraper; one car for drawing up stone; ten bags; one hundred bushels oats; 40 bushels corn; a quantity of hay.

Stone Cutters' Shed.

Four bankers; twenty straight edges; seventy-two chisels; one stone hammer.

Brick Drying Kiln.

Furnace and pipe.

Tools.

Twenty-four shovels; seven pinch bars; six crow bars; four picks; six axes; four hoes; twelve wheelbarrows; six trowels; two cranes; one tackle and rigging; one buck saw; one horse power for raising stone; one glazier's diamond.

Materials.

Five hundred feet cut stone; seven hundred feet pine lumber; fifteen thousand feet oak do; one hundred and fifty thousand bricks.

State of Michigan, County of Jackson, ss:

Edwin S. Lathrop, building commissioner, and Samuel W.

Digitized by Google

Whitwell, clerk of the state prison at Jackson, severally make oath and say, that the foregoing inventory is correct and true, according to the best of their knowledge and belief.

EDWIN S. LATHROP,
Building Commissioner, S. P.
SAMUEL W. WHITWELL,
Clerk, State Prison.

Subscribed and sworn to, this 16th day of December, A. D. 1840, before me.

WILLIAM R. DELAND,
Notary Public.

Digitized by Google

David Adams, Agent State Prison at Jackson,

1840. DR.

April	14.	To auditor general's warrant on the treasurer,	$1,000 00	
		do do	800 00	
	16.	do do	1,000 00	
May	12.	do do	1,000 00	
	15.	Cash received for one pair shoes, sold,	75	
June	16.	Auditor general's warrant on the treasurer,	1,000 00	
	25.	Cash received for $1\frac{13}{16}$ lbs. calf skin,	2 04	
		do do 1 pair shoes,	2 00	
July	31.	do from sundries for boots, shoes, &c.,	77 59	
		Auditor general's warrant on the treasurer,	1,000 00	
Aug.	31.	Cash received from sundry persons, for boots, shoes, &c.,	31 91	
Sept.	15.	Auditor general's warrant on the treasurer,	1,000 00	
	30.	Cash received from sundries for boots, shoes, &c.,	21 49	
Oct.	14.	Auditor general's warrant on the treasurer,	1,000 00	
	31.	Cash received for work done by convicts, to date,	290 47	
				$8,226 25

1840.

Oct. 31. To balance in hands of David Adams, agent, $441 88

Digitized by Google

in account current with the State of Michigan.

1840.		CR.	
April 16.	By this amount of vouchers for expenditures on the convict department, state prison, rendered auditor general,		$1,819 56
May 12.	do	do	923 68
June 13.	do	do	1,058 04
July 28.	do	do	1,078 37
Aug. 31.	do	do	1,053 87
Oct'r 6.	do	do	955 26
31.	do	do	895 59
	Balance in hands of D. Adams, this date,		441 88
			$8,226 25

State of Michigan, Jackson County, ss.

David Adams, the agent, and Samuel W. Whitwell, the clerk of the state prison at Jackson, severally make oath and say, that the foregoing statement is correct and true, to the best of their knowledge and belief.

DAVID ADAMS, *Agent, State Prison.*
SAMUEL W. WHITWELL, *Clerk.*

Subscribed and sworn to, this 26th day of November, 1840, before me.

W. R. DELAND, *Notary Public.*

State Prison Office, Oct. 31, 1840.

Digitized by Google

David Adams, Agent State Prison at Jackson,

1840. DR.

Brought forward,	$8,226 25

Carried forward,	$8,226 25

Digitized by Google

in account current with the State of Michigan.

1840. CR.

			$	$
	Brought forward,			
June 30.	By paid Walter Tabor, R.	90	33 75	
	Isaac Hammond,	91	33 75	
	A. C. Richardson,	92	3 37	
	C. S. Elwell,	93	33 75	
	Irus Hammond,	95	23 63	
July 3.	Thomas A. Swift,	99	2 00	
10.	do	102	30 00	
14.	Reuben Swift, balance to date,	104	14 63	
	U. B. Way, do	105	12 93	
18.	D. Childs, do	106	3 00	
31.	John Tyler, half day's services,	113	56	
	U. B. Way, balance to date,	114	19 69	
	Wm. Hammond, balance to date,	116	12 94	
	Irus Hammond, balance to date,	117	33 75	
	Isaac Hammond, balance to date,	118	34 88	
	William Fulkerson, balance to date,	119	34 88	
	Walter Tabor, balance to date,	120	34 88	
	Michael Harrigan, balance to date,	121	10 69	
	E. Allen, balance to date,	122	28 13	
	D. Childs, balance to date,	123	18 00	
	Thos. A. Swift, balance to date,	124	2 88	
	C. S. Elwell, balance to date,	125	34 88	
	James Blaney, one day,	126	1 13	
	Wm. Cockburn, half do	127	56	
	Reuben Swift, balance to date,	128	16 88	
	Jas. Turner, to date,	129	34 88	
	E. B. Miller, to date,	130	5 06	
Aug. 10.	T. A. Swift, on acc't,	134	2 57	
11.	Irus Hammond, do	135	5 00	
	Carried forward,		$	$

Digitized by Google

David Adams, Agent State Prison at Jackson,

1840. DR.

Brought forward,	$8,226 25
Carried forward,	$8,226 25

Digitized by Google

in account current with the State of Michigan.

1840.		CR.			
		Brought forward,		$	$
Aug.	13.	By paid M. Fallahu, half day, R.	136		56
	18.	Ethan Allen, on acc't,	138	5	00
	20.	A. E. Lyon, to June 24,	139	2	25
		Isaac Hammond, on account,	140	5	00
	21.	Thomas A. Swift, on account,	141	10	00
	25.	Walter Tabor, to date,	142	21	38
	29.	U. B. Way, to date,	144	32	63
	31.	C. S. Elwell, do	146	34	88
		T. A. Swift, do	150	21	18
		Wm. Fulkerson, do	151	34	88
		E. Allen, do	152	28	75
		R. Swift, do	153	34	88
		Isaac Hammond, do	154	29	88
		Irus Hammond, do	155	29	87
		M. Harrigan, do	156	12	38
Sept.	7.	D. A. Cogswell, services in July,	157	1	50
	9.	C. S. Wing, do	159	1	00
	19.	James Turner, to 31st August,	162	34	87
	23.	C. S. Elwell, to date,	163	25	31
	30.	Irus Hammond, do	166	33	75
		Thos. A. Swift, do	167	33	75
		D.C. Richardson, do	168	36	00
		Reuben Swift, do	170	33	75
		James Turner,	171	33	75
		E. Allen,	172	33	75
		Isaac Hammond,	173	33	75
		William Fulkerson,	174	34	31
		M. Harrigan,	175	33	75
		W. Tabor,	176	8	44
Oct.	16.	Isaac Hammond, on account,	182	5	00
	23.	do do	184	20	00
	31.	Irus Hammond, to date,	187	34	83
		Isaac Hammond,	188	9	88
		William Fulkerson,	189	34	88
		Thomas A. Swift,	190	34	88
		W. Tabor,	191	34	88
		Carried forward,		$	$

Digitized by Google

David Adams, Agent State Prison at Jackson,

1840. DR.

Brought forward,	$8,226 25

Carried forward,	$8,226 25

Digitized by Google

in account current with the State of Michigan.

1840. CR.

				$	$
	Brought forward,				
Oct. 31.	By paid M. Harrigan,	R.	192	34 88	
	E. Allen,		193	34 88	
	R. Swift,		194	34 88	
	D. C. Richardson,		195	34 88	
	James Turner,		196	34 88	
	William Hammond, in July,		200	3 38	
					2,239 06
	Stationery.				
April 18.	S. L. Rood, for books,	I.	5	35 75	
May 12.	A. S. Bagg, for ink,		18	1 25	
Sept. 15.	S. L. Rood, for books,		32	39 38	
Oct. 6.	S. W. Whitwell, for steel pens,	R.	179	1 25	
					77 63
	Freight and Transportation.				
April 18.	Parker & Co., freight,	I.	3	78	
23.	G. B. Chapman, teaming leather,	R.	16	1 00	
May 14.	L. B. Davis, teaming sundries,	I.	19	1 00	
25.	H. B. Lathrop, teaming leather,	R.	84	1 13	
June 27.	Parker & Co., freight on leather,	I.	24	1 40	
Aug. 10.	H. Phipps, teaming box,	R.	132	75	
29.	Parker & Co., freight on leather,	I.	31	2 08	
Oct. 12.	Loomis, teaming oil,	R.	180	1 43	
14.	Parker & Co., freight on oil,	I.	38	1 25	
					10 82
	Traveling Expenses.				
May 9.	D. Adams' expenses to Detroit, April 18,			10 14	
11.	do do to this date,			10 75	
June 22.	do do			10 87	
Sept. 15.	do do			10 87	
Oct. 14.	do do			10 87	
					53 50
	Carried forward,				$

Digitized by Google

David Adams, Agent State Prison at Jackson,

1840. DR.

	Brought forward,	$8,226 25
	Carried forward,	$8,226 25

Digitized by Google

in account current with the State of Michigan.

1840.	CR.		$	$
	Brought forward,			
	Lumber.			
April 29.	By paid Jonas Henry, one M. feet oak lumber, R.	25	8 00	
May 6.	Jonas Henry, 1,652 feet lumber,	35	12 50	
June 5.	J. W. D. Scoonmaker, for 650 feet of white wood,	75	6 50	
Sept. 9.	Elias Headstone, for white wood,	158	2 35	
				29 35
	Labor.			
June 30.	J. T. Colby, services in lock shop, R.	94	6 00	
Feb. 28.	J. S. Holmes, mason work, I.	27	11 50	
Aug. 31.	C. J. Mann, do R.	148	3 00	
				20 50
				$7,784 37
	To amount of debits brought forward,			$8,226 25
				7,784 37
	Balance 31st October, 1840,			$441 88

State of Michigan, County of Jackson, ss:

David Adams, the agent, and Samuel W. Whitwell, the clerk of the state prison at Jackson, severally make oath and say, that the foregoing statement of account is correct and true in every respect, according to the best of their knowledge and belief.

DAVID ADAMS, *Agent State Prison.*
SAMUEL W. WHITWELL, *Clerk.*

Subscribed and sworn to, this 26th day of November, A. D. 1840, before me.

WM. R. DELAND, *Notary Public.*

State Prison Office, Jackson, Nov. 3, 1840.

Digitized by Google

David Adams, Agent State Prison at Jackson,

1840. DR.

Oct. 31.	To amount received from visitors at the prison, from 21st April to 31st October, 1840, viz: 753 persons, at 12½ cents each,	$94 13
		$94 13

Digitized by Google

in account current with the State of Michigan.

1840.	CR.		
July 10.	By paid Charles Fox, chaplain of the prison, for one quarter's salary, to May 24, 1840, at $100 per annum,	$25 00	
Sept. 11.	do do to August 24, 1840,	25 00	
			$50 00
	Balance to 31st October, 1840,		44 13
			$94 13

[In compliance with "*sections* 11 *and* 20, *of act No.* 65," *laws of* 1840.]

To E. P. Hastings, *Auditor General, Michigan:*

David Adams, agent of the state prison at Jackson, respectfully reports the following accounts as due to the convict department of said prison:

1840.			
Oct. 31.	William Daly, mending shoes,		$00 18
	David Beeman, boots and shoes,		5 00
	John S. Holmes, mending shoes,		50
	James C. Bradt, do		62
	Edward B. Miller, boots, shoes, &c.,		5 39
	Robert Blain, do		10 47
	John Tyler, do		14 92
	Geo. W. Woodworth, do		24 00
	Tomans Johnson, balance of account, 1839,		37
	Joseph S. Ward, rent of house,	$9 00	
	1 pair of pistols,	7 00	
	1 trunk,	2 00	
			18 00
	United States, for the support of the following prisoners, viz: Henry White, Abner Johnson, Peter Loomis, Silas S. Doty, Sam'l D. Foster and Sol. W. Newman,		764 38
			$843 83

To E. P. Hastings, *Auditor General, Michigan:*

Sir—In compliance with the requirements of section No. 17, of "An act to amend 'An act to provide for the government and discipline of the state prison,'" I respectfully submit the following statement of expenses incurred in transporting

Digitized by Google

prisoners to the said prison, from the 20th April to the 31st October, 1840.

DAVID ADAMS, *Agent State Prison.*

State Prison Office, Jackson, Oct. 31, 1840.

April 20.	In conveying prisoner Walter Johnson, from Macomb county, to state prison, viz: paid C. S. Madison, deputy sheriff, his expenses, together with stage and railroad fare for self and said prisoner,	$22 75	
	Paid do for five day's services at $3,	15 00	
25.	In conveying prisoners, Philander R. Myers, Geo. W. Norton, Jos. Rogers and Henry Van Volkenburg, from Adrian, Lenawee county, to said prison, viz: paid Wm. H. Monroe for use of team, self and attendant, together with expenses on road,	8 00	
	Paid by David Adams, sundry charges for meals, &c.,	7 39	
May 21.	In conveying prisoners, Isaac Stoddard, Nehemiah Houghton, Henry Hopkins, from Washtenaw co. to said prison, having use of the state team and teamster, viz: paid expenses of team on the road, also for meals, &c.,	7 38	
June 11.	Conveying prisoner, Louis Genereau, from Kent, Kent co., to said Prison, viz: paid Sherman Eastman, his expenses for stage fare to Kent; also expenses incurred for himself and prisoner therefrom, to the said prison,	41 63	
June 21.	In conveying prisoners, Squire Green and Mary Conlick, from Monroe, and Ansel Witherell, from Adrian, to state prison, viz: paid expenses, state team, on the road, and at said places, together with expenses of meals, &c., for D. Adams and prisoners,	20 00	
27.	In conveying prisoner, Daniel Bowker, from Kalamazoo, to said prison, viz: paid D. Adams' expenses for stage fare, for self and prisoner, together with meals, &c.,	17 25	
July 9.	In conveying prisoner, "Jim," alias "Nett," alias "Assinima," (Indian,) from Kalamazoo to state prison, viz: paid stage fare,	$12 00	
	Carried forward,	$	$

Digitized by Google

	Brought forward,		
	other expenses on road,	8 00	
	Ira Burdick, sheriff, 3 days' services,	6 00	
			26 00
Sept. 16.	In conveying prisoners, Alvah Allison, Wm. Hill, John Hill, Benjamin W. Hawkins, Wm. Jackson, David Murdock and Patrick Kelly, from Detroit to state prison, having the use of the state team and teamster, paid expenses of team, &c., on road, with David Adams and Sherman Eastman's expenses, in all,		27 69
Oct. 19.	In conveying prisoners, Royal Parcher and Josiah C. Mitchell, from Lenawee county to state prison, paid D. Adams' expenses on road, &c.,		12 13
			$205 22

Inventory of the real estate, work shops and other buildings on the prison ground; also, of the tools, furniture and other effects under the direction of the agent, and belonging to the state of Michigan, the whole on hand the 31st day of October, A. D. 1840, made in pursuance of section 32, of "An act to provide for the government and discipline of the State Prison."

Houses without the Prison inclosure.

One large frame house, for the use of the agent; one smaller frame house, occupied by the deputy keeper; one other frame house, rented to guards.

Within the Prison inclosure—Mess room.

One stove, and 40 feet of pipe; pine tables, and benches therefor; 83 blankets.

Kitchen.

Three tables; two barber chairs; kit of barber's tools; two stools; one cauldron kettle; two five pail kettles; one three pail kettle; one one pail kettle; one six quart kettle; one tin oven; one brick oven; two coffee boilers; two bread troughs; one meat trough; one clock; one closet, furniture for forty men, *i. e.* tin cups, tin plates, knives and forks and spoons; twenty tin baking dishes; four wood and one tin pails; one pair and-irons; eight tin lamps; three shovels; one pair tongs; brooms; one scraper; one thirty gallon oil tank; one three

Digitized by Google

gallon oil can; one lamp filler; one gallon measure; one apothecary's closet, with sundry drugs, medicines, bottles, &c.

Clerk's Office.

Furniture; sundry books and papers; iron safe; stove, and eight feet pipe.

Within the Cells.

One hundred and sixty-two blankets; thirty straw pillows; fourteen iron bedsteads; eighteen wood bedsteads.

Lock Shop.

Two vices and bench; one lathe and tools; one screw punch press; sundry files and tools; brick forge; one crucible; one pair scales and weights; six casting flasks; moulding table; seven sheets iron; bar iron, weighing three hundred pounds; one bar zinc; one old stove; two pair tongs; one bar rod iron.

Tailor's Shop.

One bench and drawer; one tailor's iron; three pair shears; one chisel; pine box and padlock.

Shoe Shop.

Seven work benches; three kits tools; forty lasts; set boot trees; one pair crimps; four pair clamps; cutting bench; box stove, and twenty feet pipe.

Carpenter's Shop.

Two saw horses; one shaving horse; one work bench; one mortice bench; one hand saw; set bench planes; two fine saws; drawing knife; sash plane; two augers; brace bits; one lathe and tools; two iron clamps; two try squares; one tool chest; one grind-stone; one broad axe; one cross-cut saw; four settees; one stove, and twenty feet pipe.

Sundries.

One gallows stove; one box stove; one cook stove; six pistols; six muskets; six globe lamps; one large bell; five pigs; six wells and one pump; three ladders.

State of Michigan, County of Jackson, ss:

David Adams, the agent, and Samuel W. Whitwell, the clerk of the state prison at Jackson, severally make oath and say, that the foregoing statement, or inventory, is correct and true in every respect, to the best of their knowledge and belief.

DAVID ADAMS, *Agent State Prison.*
SAMUEL W. WHITWELL, *Clerk.*

Subscribed and sworn to, this 26th day of November, A. D. 1840, before me.

WM. R. DELAND, *Notary Public.*

Digitized by Google

[No. 3.]

Annual report of the state treasurer.

STATE TREASURER'S OFFICE,
December 30, 1840.

I have the honor to present to the legislature, my account current, showing a balance in the treasury, of $80,102 30
Of this amount, there was received from my predecessor, which was unavailable, the sum of 12,941 50

Leaving, in available funds, $67,160 80

I have prepared abstracts, exhibiting more in detail, the receipts and expenditures, to which I refer, as containing all the information required from this department.

All of which is respectfully submitted.

ROBERT STUART, *State Treasurer.*

Robert Stuart, Treasurer, in account with the State of Michigan,

DR.

To balance in the treasury, November 30, 1839, after deducting amount deposited in the Michigan state bank,	$45,495 95
Amount received on account of general fund,	114,000 57
do do internal improvement fund,	953,893 26
Amount received on account of delinquent tax fund,	90,904 15
Amount received on account of bank fund,	280 00
do do school fund,	27,210 23
do do contingent fund,	2,078 62
do do geological surveys,	12,000 00
do do state buildings,	950 20
do do library,	1,000 00
do do the several counties, being one half of office charges,	1,131 80
	$1,248,944 78
Balance,	$80,102 30

CR.

By amount of payments on account general fund,	$141,352 81
do do internal improvement fund,	920,587 01
Carried forward,	$

Digitized by Google

Brought forward,		$
By amount of payments on account delinquent tax fund,		67,205 91
By amount of payments on account bank fund,		597 22
do do school fund,		28,650 99
do do contingent fund,		3,316 17
do do geological surveys,		7,161 37
By amount of payments on account library,		21 00
Balance,		80,102 30
		$1,248,944 78

—

General Fund.

Amount overdrawn, Nov. 30, 1839,	$2,955 12	
do transferred to geological survey,	$12,000 00	
do transferred to library fund,	1,000 00	
do transferred to contingent fund,	2,000 00	
	15,000 00	
Paid auditor's warrants,	126,352 81	
		$144,307 93
CR.		
Amount transferred from internal improvement fund,	$100,000 00	
Amount of receipts,	14,000 57	
		$114,000 57
Amount overdrawn,		30,307 36
Outstanding warrants payable out of this fund,		165 00
		$30,472 36

Bank Fund.

Amount overdrawn, Nov. 30, 1839,	$3,483 28	
Paid auditor's warrants,	597 22	
		$4,080 50
CR.		
Amount received,		280 00
Amount overdrawn,		3,800 50
Outstanding warrants,		312 50
		$4,113 00

Digitized by Google

Internal Improvement Fund.

Balance to the credit, November 30, 1839,			$11,149 98
Amount received on the following drafts of auditor general, on R. Withers:			
Draft payable April 1, 1840,	$100,000 00		
do do	101,562 50		
			201,562 50
do July 1, 1840,			42,490 00
do October 1, 1840,	$20,000 00		
2 do do each $10,000,	20,000 00		
1 do do	40,000 00		
2 do do each 50,000	100,000 00		
1 do do	10,000 00		
1 do do	10,000 00		
1 do do	7,187 50		
			207,187 50
1 do January 1, 1841,	$4,415 00		
4 do do each $10,000,	40,000 00		
			44,415 00
4 do April 1, 1841, do	$40,000 00		
2 do do each $20,000,	40,000 00		
4 do do each 5,000,	20,000 00		
1 do do	10,000 00		
1 do do	3,700 00		
			113,700 00
1 do do			242 59
For interest on public stocks, due January 1, 1840,	$151,325 00		
do July 1, 1840,	161,885 00		
			313,210 00
Amount returned by William R. Thompson, commissioner,			291 67
Amount being receipts on Central railroad,	$16,686 47		
Received of United States, for five per cent on land sales,	14,107 53		
			965,043 24

DR.

Amount transferred to general fund,	$100,000 00		
do state prison fund,	20,000 00		
Paid int., Jan. 1, 1840,	151,325 00		
do July 1, 1840,	161,885 00		
Carried forward,	$	$	$

Digitized by Google

Brought forward,	$	$	$
Paid expenses running Central railroad,	227 62		
		433,437 62	
Paid warrants for discount on sundry drafts sold Bank of Michigan,		15,899 16	
Paid auditor general's warrants on account of various appropriations,		471,200 23	
			920,537 01
Balance in the treasury,			$44,506 23
Less for amount of outstanding warrants,			65,786 51
Amount overdrawn,			$21,280 28

Delinquent Tax Fund.

Balance on hand, Nov. 30, 1839,	$27,383 25	
Amount received on account of delinquent taxes,	90,904 15	
		$118,287 40
DR.		
Paid auditor general's warrants,		67,205 91
Amount in the treasury,		$51,081 49

Geological Survey.

Balance on hand, Nov. 30, 1839,	$2,644 05	
Transfer from general fund,	12,000 00	
		14,644 05
DR.		
Paid auditor general's warrants,		7,161 37
Balance in the treasury,		$7,482 68

Library.

Balance on hand, Nov. 30, 1839,	$1,186 39	
Transfer from general fund,	1,000 00	
		$2,186 39
DR.		
Paid auditor general's warrants,		$21 00
Balance in the treasury,		$2,165 39

Digitized by Google

School Fund.

Balance on hand, Nov. 30, 1839,	$4,756 40	
Amount of receipts,	27,210 23	
		$31,966 63

DR.

Paid auditor general's warrants,	28,650 99
Balance in the treasury,	$3,315 64

Fund for State Buildings.

Amount on hand, Nov. 30, 1839, certificate of deposit Michigan state bank,	$449 75	
Amount of receipts,	950 20	
		$1,399 95

Fund for Counties.

Amount received, being one half of office charges,	$1,131 80

Unexpended appropriations for sustaining the supremacy of laws,	$2,179 77	
Militia,	947 21	
		$3,126 98

Contingent Fund.

Balance on hand, Nov. 30, 1839,	$1,237 55	
Transfer from general fund,	2,000 00	
Dec. 3, 1839. Amount received from M. L. Gage, deposited in State bank,	78 62	
		$3,316 17

DR.

Dec. 27. Paid warrant favor H. L. Whipple,	$83 33	
do J. M. Chase,	83 33	
Amount received from M. L. Gage, deposited in Michigan state bank,	78 62	
Jan. 3. 1840. Paid warrant favor J. S. & S. A. Bagg,	45 63	
7. Paid warrant favor Detroit postoffice,	120 04	
11. do E. Bingham,	75	
do Aymar & Shaw,	34 50	
Carried forward,	$	$

Digitized by Google

			$	$
		Brought forward,		
Jan.	18.	Paid warrant favor H. N. Strong,	40 00	
		do P. Desnoyers,	24 87	
April	20.	do Gov. Woodbridge's order,	805 10	
June	30.	do Gov. Woodbridge,	1,000 00	
Nov.	30.	do do	1,000 00	
				3,316 17

Unavailable Funds.

Amount received from Bank of Ypsilanti, deposited by Thomas Clarke, collector, and placed in the hands of P. Morey, attorney general, for collection,	$10,000 00
Protested draft of Ypsilanti and Tecumseh railroad,	1,530 00
River Raisin bank notes,	7 00
Counterfeit bank notes,	73 50
Detroit city bank notes, and cash items,	168 01
Part of H. Howard, auditor general's warrant, in favor of D. V. Bell,	182 79
C. H. Stewart's receipt as receiver of Bank of Ypsilanti,	303 00
Certificate of deposit of Bank of River Raisin,	227 45
do Michigan state bank,	449 75
	$12,941 50

[No. 4.]

Annual report of the board of internal improvement.

OFFICE OF INTERNAL IMPROVEMENT,
Detroit, December 24, 1841.

To the honorable the legislature of the state of Michigan:

The undersigned, members of the board of internal improvement of the state of Michigan, appointed in pursuance of the act entitled "An act for the regulation of internal improvement," approved March 25, 1840, have the honor respectfully to report:

That the undersigned met at the city of Detroit, on the 31st of March last, and organized temporarily, by continuing in

Digitized by Google

their respective situations, all the subordinate officers appointed by their immediate predecessors.

That on the 1st of April last, Messrs. Rix Robinson, Levi S. Humphrey and William R. Thompson, members of the late board of internal improvement, presented to the undersigned their claims to a seat and voice in the deliberations of the present board; also, expressing a doubt as to the constitutionality and legality of their removal from said office of commissioners of internal improvement, and asking the opinion and action of the undersigned on the point, whether the said Robinson, Humphrey and Thompson are, or are not, members of the present board of internal improvement?

In accordance with their request, and after a careful investigation of the law creating the present board, the undersigned unanimously adopted the following resolution:

"*Resolved*, (as the opinion of this board, acting under the authority of the act last mentioned,) That it cannot regard either of the first mentioned board of commissioners, as commissioners now in authority, or entitled to a voice in the deliberations of the board of internal improvement of this state.

That on the last mentioned date, the board, for the purpose of enabling themselves to comply with the 23d section of the act by which they were appointed, by resolution, called upon the agents of the state, (appointed by the late board,) to furnish them with a schedule of public property on hand, and under their charge respectively. Under this requisition, the board obtained statements of the same from the engineers, superintendents and agents on the Central and Northern railroads, Clinton and Saginaw canals, from Rix Robinson, the commissioner lately having charge of the river improvements, and, after much delay, (as the undersigned are induced to believe,) an incomplete and imperfect statement from the engineer on the Southern railroad. And the board would beg leave to state here, that up to the present time, they have not received the field books, contracts and other important papers under his charge, and necessary to the construction of the work, the want of which has left the undersigned, and their agents, without information with regard to the amount of work which had previously been estimated by him, and the prices to which contractors were entitled, for work done subsequent to his leaving the employ of the state.

The board, at meetings held on the 8th, 9th, 18th and 21st of April, and the 15th of May last, made the following appointments, viz: John M. Berrien, principal engineer under the board; Alvin Turner, principal engineer on the Clinton and Kalamazoo canal; Ludwick Wesolowski, assistant engineer on the same, and Alexander H. Adams, secretary and book keeper

Digitized by Google

to board, with each a salary not exceeding the amount prescribed by law.

They also at the same dates, appointed Benjamin Briscoe superintendent of car and machine shops of the Central railroad, with a salary at the rate of eight hundred dollars per annum; Gerge Byrd, collector of tolls on same, with a salary of seven hundred dollars per annum; Samuel D. Woodworth, assistant collector of tolls on same, with a salary of six hundred dollars per annum; Henry Willis, superintendent of repairs and of wood and water stations on same, with a salary of seven hundred dollars per annum; A. H. Adams, weighmaster at Detroit, on same, with a salary of two hundred dollars per annum, and George H. Brodhead, receiver of tolls on same, with a salary of five hundred dollars per annum.

Subsequent to their appointments, Messrs. Brodhead and Willis resigned the situations to which they were appointed; whereupon William S. Driggs was appointed to the place lately occupied by the former, and Daniel B. Brown to that of the latter, with the same compensation allowed the former. It also being deemed advisable, about the first of August last, to suspend the running of one train of cars on this road, the services of Mr. Byrd, the collector thereon, were necessarily dispensed with, and in consequence of the whole duty of collection of tolls devolving upon Mr. Woodworth, the collector on the other train, his compensation was increased from six to eight hundred dollars per annum, during the time when one train of cars should run upon the road.

By a resolution of the board, adopted on the 18th of April last, Robert Stuart, Esq., a member thereof, was empowered to make all the necessary arrangements for the receiving and delivering the railroad iron contracted for by Levi S. Humphrey, agent of the state, which was then lying in the cities of New York and Buffalo. After much detention, and final recourse to legal measures, he has succeeded in delivering to this city, one hundred and thirteen tons five hundred and seventy-five pounds, ($113\frac{575}{2000}$ tons,) being only that portion which was lying in the city of Buffalo. The quantity remaining in the city of New York, is detained there until a claim. alledged by Messrs. Hicks & Co., to be due them, is liquidated; of the amount or justness of this claim, the board are wholly unadvised, as no contracts or papers are filed in their office, showing the amount of iron contracted for, the price per ton, or the cost of transporting the same to this place. By reference to the annual report of the late board, it will be seen that the sum of eighty thousand dollars is there given as the amount due on the contracts for said iron, and as no sum of this magnitude appears to have been paid since the date of that re-

Digitized by Google

port, it is probable the amount due is nearly the amount given therein.

By a resolution of the board, adopted April 21st, last, the acting commissioner was authorized to place a train of cars, for the transportation of freight and passengers, on the Southern railroad, whenever the same should be completed from Monroe to Adrian. To enable him to carry out the intentions of the board, and in the absence of the necessary means for that purpose, it was deemed advisable by him, in conjunction with the other members of the board, to transfer from the Central railroad such machinery and cars as were necessary to effect the object, and to continue the train in operation, if, on a fair trial, it should be found to pay the expenses of running the same. To enable him still further to carry out this object, an arrangement was made with the Bank of Michigan, for an advance of one thousand dollars, to pay the expenses of fitting up a work shop and providing the necessary implements for furnishing the same.

The cars commenced running regularly on this road on the 23d day of November last, from Monroe to Adrian; but as the road from the former place to La Plaisance bay, (a distance of four miles, and the only point for the transhipment of property conveyed on the Southern road,) in consequence of the repairs now being made upon it, is not in a condition to use; the result thus far could not be considered a fair test of its utility.

On entering upon their duties, the board found that contracts had been entered into, on the Southern and Central railroads, and the Clinton and Kalamazoo canal, to an extent exceeding the amount of appropriations on each of said works, and as the existing law, from which their powers are derived, prohibits the making of any contract, except in strict accordance with appropriations previously made, their duties in relation to these works, were entirely limited to a supervision of the work done under existing contracts.

On the Southern railroad the contracts extended to the laying down the iron as far as Adrian, a distance of thirty-four miles from Monroe, and the grading, bridging and superstructure, from Adrian to Hillsdale, a distance of thirty-two miles, The estimates allowed and signed by the acting commissioner for work done and materials delivered, on this road, under the above mentioned contracts since March 31st, last, is $56,981 47. The amount paid by the commissioner under the late board, on this work, from December 1, 1839, to March 31, 1840, as appears by vouchers filed in this office, and audited since the first mentioned date, is $120,793 39.

On the Central road, contracts had been entered into for the completion of the grading, bridges and timber for the super-

Digitized by Google

structure, and a verbal agreement made for laying and ironing a principal part of the road from Ann Arbor to Dexter; from Dexter to Jackson, contracts had also been entered into for grading, and timber for the superstructure, for nearly the whole distance; a part of the contracts for grading had been abandoned by the contractors, for want of means to carry them on, or declared forfeited by the acting commissioner under the late board, for a non-compliance with the requirements therein contained.

From a view of the facts here presented, some doubts were entertained by the board, whether, under a rigid construction of the 7th section of the act by which they were appointed, their legal authority to prosecute, or superintend, the progress of any portion of the above works, did not cease upon the appropriation therefor being expended; but finding the work under contract, as stated above, and, in many instances, far advanced towards completion, and not questioning the intention of the legislature ultimately to finish what had been thus put under contract, although the legality of such contracts, in advance of appropriations, is deemed questionable; and finding, also, that a suspension of the work, in the condition it was in, when the appropriations were expended, would subject the state, or the contractors, to heavy damages and loss, (*see letter of J. M. Berrien, principal engineer, herewith submitted, marked A.*,) the board came to the conclusion that the public interests would be promoted by permitting the work to progress, and affording the contractors such facilities as were in their power to forward their work. The contractors on the Southern, and a portion on the Central roads, were willing to go on with the works under their contracts, trusting to the legislature to make provision for their future payment, provided they could get certified estimates for their work.

Believing this to be the proper course, under a full view of the circumstances, the board authorized Theophilus Metcalf, (formerly an engineer on the Southern railroad,) by their letter of appointment, dated May 1st, 1840, herewith submitted, (marked B,) to take charge of said road, and measure and estimate the work. By his report, herewith submitted, (marked C,) the amount performed, and estimated by him, under this arrangement, is $5[illegible],981 47, which estimates are now afloat, and for the payment of which, no provision has been made.

The work on the Central road from Dexter to Jackson, has progressed under a similar arrangement since the first of June last, the appropriation on said road being expended about the 15th of May preceding.

The total amount paid on this road, under the direction of the present board, is $50,774 42; the amount of work estimated on the fifth and sixth divisions from Dexter to Jackson, and

Digitized by Google

now due, certified estimates for which are now afloat, is $17,476 10. The work on the fourth division from Ann Arbor to Dexter, is nearly completed. By arrangements entered into with the Bank of Michigan, during the last summer, by the contractors on the line, predicated upon an assurance from the board, of their disposition to facilitate, as far as in their power, the final adjustment of their claims for such advances as they might make under such arrangement, that portion of the road has progressed rapidly towards completion. The amount advanced by the bank under this arrangement, is $34,387 54.

The iron has been laid upon that part of the road within four miles of Dexter, and a quantity sufficient on the line to lay about one and a half mile more, which will leave a distance of two and a half miles to be completed when the iron can be obtained for that purpose; with a view to this object, and a desire to open the same for travel at an early day, the board were desirous of obtaining from Monroe a quantity deemed sufficient to accomplish this object; and with a knowledge that of the iron which had been contracted for, under a former board, there had been delivered at Monroe a quantity sufficient to lay some forty miles of road, while there had been delivered at Detroit, including what has been obtained during the present season from Buffalo, a quantity sufficient to iron about sixteen miles; and consequently that after furnishing the road between Monroe and Adrian, there must be a surplus, which the board was not authorized by any existing appropriation or contract, to lay upon that road, and which must remain useless to the state for the present, since no law existed which would authorize the applying it to the road leading to La Plaisance harbor—that road having been purchased by commissioners appointed for that purpose since the last session of the legislature; and as no provision had been made by law for any other expenditure on it, the board considered that the application of that surplus came perfectly within the purview of their duty, and within the exercise of their sound discretion. Of this they could entertain no doubt, nor did they imagine it could, for a moment, be the subject of doubt in the minds of others, since the act under which the iron was purchased, does not designate how it shall be appropriated between the different works; and there being neither resolution or order by any previous board found upon the records of this office making such apportionment. There was no portion of the Southern road proper, reported to this board as in a condition to receive the iron, even if there had been an act of appropriation, or even a contract for laying it down, and the board has no more right to assume the power, in the absence of any legislative provision, to lay the iron on the River Raisin and Lake Erie railroad, than they would have had to lay it on the

Digitized by Google

Toledo, or any other road. The legal right of the board to direct the application of such surplus, being in their judgment clear and manifest, the expediency of conveying the same to the Central road, was the only question for them to determine.

As agents of the state, bound to make her interest the leading consideration by which to direct our measures, the question of expediency seemed to us resolved in the question, whether the interest of the state could be best promoted, by removing such portion of the surplus iron laying unappropriated at Monroe, as might be required to complete the two and a half miles of the Central road before stated; such application of the iron would bring into active operation ten miles of road through the winter and spring months; would probably add one-fifth to the revenue at present derived from said road, and without which this portion of the road constructed at the public expense, must remain useless and unproductive for an indefinite period.

With these views the board directed Mr. Morrison, the superintendent at Monroe, to forward the iron. After waiting a reasonable time, and fearful that the navigation might close, the board sent on an agent, with orders to receive and forward the same, but who returned without it; and finally learning, that such was the state of feeling that no assistance could be procured in Monroe, to remove the iron, the board, in view of the deep interests of the state involved in the application of the iron as above stated, appointed David French, of this city, with authority to employ a competent number of hands, and remove it to the pier at La Plaisance bay, in the accomplishment of which object, he reports to us, he was defeated by such demonstrations of feeling on the part of the authorities and citizens of Monroe, as rendered it, in his judgment, impossible for him to carry into effect the orders of the board, without endangering the public peace, or putting in peril the safety of his party. For these reasons, (and others, more at large and in detail, contained in a special report which will be made by this board to his excellency the governor, to which we beg leave to refer,) the undersigned have been prevented from bringing that portion of the road above referred to, into productive operation.

The work on the Clinton and Kalamazoo canal, has progressed so far, during the present season, that a portion of the contracts will be completed in the course of the next month. The amount expended by the commissioner under the late board, from December 1, 1839, to March 31, 1840, is thirty-two thousand eight hundred and ninety-seven dollars and eighteen cents, and the amount expended under the present board, from April 1 to November 30, 1840, is one hundred and thirty-

Digitized by Google

four thousand six hundred and fifteen dollars and ten cents; of this amount, one hundred and sixteen thousand five hundred and eighty-nine dollars and eleven cents has been paid on estimates for work done, services of engineers, and expenses of the engineer department, and eighteen thousand and twenty-five dollars and ninety-nine cents for damages for non-fulfillment of contract, right of way and fencing, leaving an unexpended balance of appropriation of about twenty thousand dollars. The expenditure of this balance, under the existing contracts, together with the sum of twenty-one thousand seven hundred and forty-nine dollars and ten cents, as estimated by the engineer, will complete the canal from Rochester to Frederick, which is two and a half miles from Mount Clemens.

The cost of improving the Clinton river from Frederick to Mount Clemens, as estimated by Jarvis Hurd, late chief engineer on this work, so as to render it navigable as a canal, including the locks into the river at the former place, is $51,888 17, and the cost of completing the canal on the "independent route," (so called,) where a considerable portion of excavation has been done, including the aqueducts across the Clinton river at Frederick, is $104,912 22.

From an examination of the two routes, and the reports of the several engineers on the subject, there seems to be no doubt of the fact, that the "independent route" would cost a much greater sum than the route proposed and adopted by the late board, (viz: that of using the Clinton river between those places,) but it is the belief of this board, that, should the time ever arrive when this canal would do sufficient business to indemnify the state for keeping it in operation, the "independent route," will be found to be the most judicious, permanent and economical.

Under this impression, the board, on the 24th day of July last, reëstablished the line of the canal on this route, and the acting commissioner was directed to let the same to contract, provided an excess of appropriation, over the amount necessary to complete the then existing contracts, could be found in a sum sufficient to complete the work on this route. This proving not to be the case, all further action on this subject has been suspended. For a more detailed statement of the difference in the above mentioned routes, the board beg leave to refer you to the report of A. E. Hathon, civil engineer herewith submitted, (marked D.)

On a representation, made to the board in July last, by the auditor general, that the dam across the Clinton river, at Frederick, and on the mill property owned by the state at that place, had been washed away, thereby totally suspending all operations of said mill, and incurring a serious injury to the interests of the state, the undersigned authorized David French

Digitized by Google

(the agent having charge of said property,) in conjunction with Alvin Turner, chief engineer on the Clinton and Kalamazoo canal, to proceed to erect a dam of sufficient height and durability, to answer the purposes of said mill, and also of the Clinton and Kalamazoo canal. The amount expended on said dam, up to November 30, 1840, and which has been charged to the appropriation on said canal, is $610 83, and the amount estimated to complete the same, is $710 97.

On the 10th day of July last, the board deeming it a favorable season for the purpose, determined to commence operations on the St. Joseph river, and the acting commissioner was authorized, by resolution of that date, to proceed to the St. Joseph, and with the advice of John M. Berrien, principal engineer, to expend such an amount of the appropriation of 1839, as could, in his judgment, be advantageously employed in clearing out said river. In accordance with said resolution, he proceeded and made the necessary examination. It was the intention of the board to have made use of the scows which had been constructed at Grand River, but on arriving at that place, he found them in such a condition as not to answer the purposes for which they were needed. By reference to the report of the superintendent, herewith submitted, (marked E,) it will be seen that he commenced the construction of a snag machine, and the necessary scows for the same, which were completed on the 22d of September last, and on the 23d, the work of clearing was commenced, and continued in successful operation, until about seven miles of the stream was cleared of obstructions; but on the 27th of October, an important part of the machinery gave way; there being no means in the vicinity of repairing the break, and the advanced state of the season, rendered it advisable, in the judgment of the superintendent, to suspend further operations for the season.

The expense of constructing said machine, with a cabin scow, is estimated at $1,156 26; for clearing seven miles of river, $462 52, being about $66 07 per mile, and the whole amount expended, up to October 31, is $2,147 36.

The board deem the improvement of this stream, as a work of paramount importance, being the natural outlet for the products of a large and fertile district of land, not surpassed in its capabilities for farming purposes, by any of equal extent in the state, in proof of which, by reference to the report above referred to, will be seen a statement of imports into, and exports from, that section of our state.

Before closing their remarks on this subject, the board would state, that they are dicidedly of the opinion, that there is no portion of the public works of the state where so small an expenditure, in the way of moving obstructions, would be productive of so extensive benefits; and they would, respectfully,

Digitized by Google

recommend the adoption of such measures as will secure an early resumption of this work in the ensuing spring.

On the 16th of September last, a proposition was made to the board, by Messrs. Baldwin, Vail & Hufty, of Philadelphia, to furnish two locomotive engines and tenders, for the use of the state, which was deemed by the board an advantageous one, and which was accepted, with some modifications, which will appear by the copies of the correspondence herewith submitted, (marked F.) A portion of these machines have been received, but the balance were retained, as the board have been informed, for a trifling amount of transportation due on them, until too late to be shipped up the lake before the close of navigation. Such a contingency was the more unexpected, from the fact, that the board had, by their arrangement with Messrs. Baldwin, Vail & Hufty, stipulated for the delivery of the engines at this place, by which means they hoped to guard against the recurrence of similar harrassing delays and obstructions, which they have heretofore had to encounter from the forwarders at Buffalo, and through which serious loss and inconvenience has accrued to the public service. Should your honorable body approve of the purchase of these engines, an appropriation for the payment of the same, including the transportation, will be necessary, amounting to about $14,500 00.

By a joint resolution adopted by the legislature at its last session, the board were directed to erect a car house, in the city of Detroit, or its vicinity, provided that consent could be obtained from the corporation of said city, to the erection of the same, without charge for soil; and also, that the cost of said building should not exceed the sum of $8,000 00, which sum should be charged to the appropriation on the Central railroad. In accordance with such direction, the board applied to the city authorities on the 23d of July last, for the necessary consent required in the resolution referred to, the result of which application, was the appointment of a committee of the common council, to confer with the board on the subject. After an examination of the premises in the vicinity of the present depot buildings, and the only eligible premises under the control of the said corporation, it was deemed advisable by the board to call upon John M. Berrien, principal engineer on the Central railroad, for a report with regard to the amount of ground required for the erection of said building; a copy of which is herewith submitted, (marked G.) In accordance with the views of Mr. Berrien, on this subject, after efforts were made by them to procure a suitable lot of ground, within the limits of the corporation, without cost to the state, and after the amount of the appropriation on the Central railroad had been entirely expended, the board deemed it advisable to delay any further action on the subject.

Digitized by Google

When the board assumed the charge of the public works, they found contracts in existence, executed by William R. Thompson, individually, for the transportation of the United States mail to and from Detroit, Ypsilanti and Ann Arbor. These contracts were subsequently assigned by him to Rix Robinson, president of the late board, for and in behalf of the people of the state, which assignment was accepted by the post office department, by letter of date of February 24, 1840, provided contracts with approved security were executed by said Robinson, and stating therein that contracts would be forwarded immediately for his execution. These contracts were received by the post master in this city, and presented to this office on the 14th day of May last, and after the term of office of said Robinson, as president of the board of internal improvement had expired. The undersigned declined to execute the said contracts, with the schedule time for leaving this city, fixed at an hour which, for at least three-fourths of the year, and that too, in the dullest season, would require the running of an extra train for the transportation of the mails, and at an expense exceeding the amount received for carrying the same, or else to compel the traveling public, who were desirous of availing themselves of this mode of conveyance into the interior, to leave the city at a highly unseasonable and uncomfortable hour. After frequent communications with the department, and much delay consequent thereupon, and after the assurance of an authorized agent thereof had been given, that there would be no difficulty in obtaining a change which would accommodate the views of the board, by the suggestion of the postmaster in this city, contracts were entered into on the 6th day of October last, for carrying said mails, with the time of departure from this city fixed at eight o'clock, A. M., and which, it is presumed, were forwarded by him at that time. On the 17th of December, inst., and more than two months after the execution of the last mentioned contracts, the agent of the post master in this city, presented a communication from said department, dated December 7, inclosing contracts for *immediate execution*, in the original time, (6 o'clock, A. M.,) fixed in the schedule, stating that the contracts executed as above stated, (*and which have not yet been returned,*) "*were improperly executed, as you have changed the schedule,*" and that "*no payments can be made*" until contracts, duly executed, are in possession of the department.

The undersigned, in the course pursued by them on this subject, and after much deliberation on the matter, came to the unanimous conclusion, long since, that, rather than forward the mails at the hours required by the post office department, and thereby subjecting the state to an expense beyond the amount of compensation received for the performance of the duty, they

Digitized by Google

would decline having any connection with the subject, but preferred to place the whole matter back in its original position, leaving the contractor (William R. Thompson,) and the department to make such arrangements for transporting the mails, as they might deem advisable; but in the hope of accomplishing their wishes in the adoption of a course which would meet the views of the department, and at the same time promote the interests of the state, the board have delayed a final answer upon the question up to the present time.

By reference to an accompanying statement, it will be seen that the entire receipts on the Central railroad, for the year ending November 30, 1840, is $58,577 25; the expenditures therefrom, for the necessary current expenses of running the same, is $40,972 49, leaving an excess of receipts, of $17,604 76, which has been paid into the state treasury. In said statement, it will be seen, that expenditures have been made from said receipts for the purpose of fully completing the road between Ypsilanti and Ann Arbor; an expenditure of this kind was rendered necessary by the condition of some portion of the points where heavy excavation had been made, in consequence of quicksand slides, which required the opening and widening of ditches, and the removal of a considerable quantity of earth.

With regard to the operations of this road for the past year, the board would remark, that the past season has been one of great depression in business, and producing as a natural result, a great diminution in the receipts during that time; and also, that a reduction of one-fourth in the rates of fare has been made since this board took charge of the work—a measure which, though calculated to promote the permanent interest of the road, and add to the profits of the producer, has in all probability diminished the receipts for a large portion of the past year, in a ratio very nearly equal to the amount of the reduction in the rates of fare. If this road was completed double the distance it is now run on, the increase of the expense of running it, would bear quite a diminished proportion to the increase of distance, and would thus yield an increase of profit on the same amount of business, and to be added to this is the increase of business, which will be in a ratio proportionate to the increase of distance. Collateral to this may be considered the new sources of wealth which will be created by bringing a market to extensive districts of land, which are now lying idle and unproductive, for the want of that necessary stimulus to industry, which is administered when labor has the promise of an adequate reward. Although such considerations as the latter, ought not, of themselves, to be deemed sufficient to warrant the construction of a public work, yet when the preliminary basis is laid in the establishment of the fact, that the in-

Digitized by Google

come of the work will unquestionably pay the interest on the cost of construction, they are, and of right ought to be, powerful auxiliary motives to stimulate to the prosecution of such works with increased energy and zeal.

The board have been prevented, from a variety of causes, from giving during the present season, that examination which was necessary in order to a judicious application of the appropriation for the improvement of the Grand river, but intend shortly to do so; in which case, it may become the subject of a special communication. The undersigned deem the natural outlets to market furnished by the large streams that penetrate the interior, and wash extensive districts, as more properly objects for improvement, than any other, since through them more extensive advantages may be derived to the state, at a less expenditure of money.

From the details herewith submitted, it will be seen, that during the present fiscal year, there has been expended on all the different works within the state, for which appropriations have been made and contracts entered into, the sum of $463,816 85. When to this is added the damages claimed for nonfulfillment of contract, and for the right of way, the amount of which we have no means of estimating with any degree of accuracy, it cannot fail in the aggregate, to draw heavily upon the remnant of the fund, on which alone we must depend for the completion of all, or any portion of our works.

A committee of the house of representatives, at the last session, reported that there then remained of the five million loan, clear of interest and charges, secured by the Bank of the United States, which is the only portion of the loan that is available, the sum of $1,882,875, from which sum deduct the amount of expenditures for the present fiscal year, and the estimates and accounts afloat, over and above the appropriations heretofore made, and the advances made by the Bank of Michigan, amounting in all to $602,110 10, and there will be left the sum of $1,280,764 90, out of which to discharge the outstanding claims for damages and prosecute our works of internal improvement.

We confess that the contemplation of our pecuniary condition is any thing but pleasurable, and if we could evoke the spectre that obtrudes itself upon our view, with its ill-omened predictions of coming evil, by closing our eyes and our ears, we would gladly do so; but our affairs are not to be remedied by apathy or indifference, still less by fretful and censorious crimination upon the conduct or motives of others; we cannot rail the seal off our bond, no more than we can cancel it by folding our hands, or shrugging our shoulders in supineness. It becomes us, then, as men, sensible that our circumstances are perilous and alarming, to rouse ourselves to that degree of

Digitized by Google

vigilance, activity and moral courage, which shall best enable us to ward off the impending stroke, or at least mitigate the violence of its descent. We are aware that we cannot approach this subject with the frankness which it demands, without encountering the cupidity, the selfishness, or perhaps the honest prejudices of many whose interests or judgments may have led them to entertain views different from ours, and who may be moved on that account to impugn our motives.

We think the time has gone by, when it will be either safe or prudent in a public man, who values his reputation, to maintain that it can, under any circumstances, be justifiable to expend the public money on works of internal improvement, without a moral certainty or a strong probability that they will afford an income sufficient to pay the interest on the cost of their construction. A different rule would sanction the odious principle, that the general interest shall be made subsidary to those that are merely local, or that the whole may be taxed for the benefit of a part; and though it has been customary to urge the *claims* of the centre, the north and the south, we must now begin to perceive, in the greatly reduced state of our fund, that there are no claims so proper to be considered as the *claims* of those who hold our state bonds, and that, if we would preserve the public faith inviolate, and at the same time regard the claim of the people to be exempted from ruinous taxation, it behooves us to husband our remaining resources, and to apply them only where a profitable return may be anticipated.

While, in the opinion of the undersigned, the rule to which we have referred should never have been departed from, we freely confess that there has been much in the condition and circumstances of the country to stimulate to wild and reckless investment, and consequently much that is calculated to mitigate the censure due to a policy so indefensible; but to persist in it after we, in common with our country at large, have awakened from our delusion, would be, in our view, the sure precursor of state bankruptcy and ruin. While the undersigned hesitate not to say, that many of the public works begun and prosecuted to construction, are not of a character to inspire the hope that they will pay the interest on the cost of construction, even if they should pay the expense of keeping them in operation, still had it been otherwise, and did they afford a reasonable hope of being profitable when completed, it is now manifest, whatever different opinions may have been entertained heretofore, that the works commenced were on a scale of magnitude and expense entirely incommensurate with the ability and wants of the state, and utterly beyond all reasonable calculation, based upon its population and resources, and that true policy would dictate, if necessity did not con-

Digitized by Google

strain us, to throw off a portion of the load which experience has taught us our shoulders cannot sustain. But how are we to adopt such a policy? There is but one of two ways—either to select from the various works commenced, that one which will best accommodate the public, and afford the best return to the state, and apply to it our undivided energies, with a view to its completion, or abandon all, and invest in some other way, the small amount of our fund still on hand.

In the view of those who think that the loan was predicated upon the pledged faith of the state, that all the works commenced should be carried on to completion, and that no part of them can be abandoned while any portion of the loan remains applicable to the purpose for which it was obtained, there is no remedy but to go on as we have commenced. In other words, we have nothing for it, but to reconcile our minds to the utter prostration and ruin of the state. If each section of the state insists upon an equal application of the remaining fund on the works in which they are most immediately interested, it will be frittered away in such a manner as to supply no income to the state in liquidation of the annual interest on the loan, which will have to be met by a tax on real estate; the resulting consequence of which will be, that these sections of the state that have pertinaciously urged their claims for a share of the fund, will have the poor consolation of having entailed upon themselves and their posterity, a debt which will depreciate the value of their real estate much more than it will have been enhanced by such an unwise application of the public moneys. Such a course of policy were as unwise as would be that of a ship's company who should abandon the only means left in their power to save the vessel from sinking and let her perish, while they are contending with each other to secure a share in the division of the property on board. Shall we disregard the ordinary maxims of prudence and common sagacity, no less than the fruits of our own dearly bought experience? What does our own experience teach us? We have expended, or wasted, three-fifths of our five million loan, and what have we to show for it? We have finished about forty, say fifty, miles of the Central, and about thirty-four of the Southern railroads, and there will soon be completed the portion of the Clinton and Kalamazoo canal between Rochester and Frederick; and where are the profits to remunerate the state for this heavy outlay? If, then, it is manifest that the resources of the state are inadequate to complete all the works commenced, that the full benefit anticipated from all or either of them, cannot be realized, unless they shall be prosecuted to completion, or nearly so. That to divide the pittance that remains of the fund on all the works, would be equivalent to throwing it away, and would leave us charged with an annual

Digitized by Google

tax of $300,000, to be levied in addition to our present burthensome taxes, and finally, if there is then among the various works commenced, one which affords a hope to which we may cling to save us from the crushing weight of debt, that like an avalanche, hangs over us, would it not be madness to neglect it, and throw away the means that never can be recalled when motives so imperative and so plain, dictate a contrary course?

In submitting these views, we have felt that the present is a crisis in the history of our state, pregnant with consequences of deep and vital interest to ourselves and to posterity; and in view of the great concernments involved in the course of policy which it is proper to pursue, the state has a right to expect of the public functionaries, to whom she may have committed any portion of her interests, a frank and fearless discharge of duty.

We, therefore, in full view of our responsibilities, as public officers, of our reputation as men, and of all the high and sacred motives that bind us to a sincere and faithful discharge of duty, respectfully submit to your enlightened judgment, the facts and suggestions embodied in this report.

JOHN VAN FOSSEN,
THOMAS ROWLAND.

Statement of expenditures on the works of Internal Improvement of the state of Michigan, for the year commencing December 1, 1839, and ending November 30, 1840.

Central Railroad—For engineering.

Paid by Wm. Thompson, com'r,	$4,384 25	
do auditor general,	4,265 09	
		$8,649 34

For locomotives and cars.

Paid by W. R. Thompson, com'r,	$630 60	
do auditor general,	309 90	
		940 50

For grubbing.

Paid by W. R. Thompson, com'r,	$445 16	
do auditor general,	235 00	
		680 16

For grading.

Paid by W. R. Thompson, com'r,	$29,110 18	
do auditor general,	38,336 02	
		46,446 20
Carried forward,		$

Digitized by Google

Brought forward,			$
For superstructure.			
Paid by W. R. Thompson, com'r,		$17,697 40	
do auditor general,		6,723 24	
			16,420 64
For bridges.			
Paid by W. R. Thompson, com'r,		$8,488 30	
do auditor general,		2,401 44	
			10,889 74
For depot buildings.			
Paid by W. R. Thompson, com'r,		$2,853 43	
do auditor general,		720 54	
			3,573 97
For contingent expenses.			
Paid by W. R. Thompson, com'r,		$18 02	
auditor general,		955 51	
			973 53
For damages.			
Paid by W. R. Thompson, com'r, for	right of way,	$3,507 13	
do do	fencing,	71 17	
do auditor general,	right of way,	1,925 93	
do do do	fencing,	70 00	
do do do	non-fulfillment of contracts,	17,686 51	
			23,260 74
Total expenditures,			$111,834 82
Recapitulation.			
Expended by W. R. Thompson, com'r,		$61,060 40	
do auditor general,		50,774 42	
			$111,834 82
Southern Railroad—For engineering.			
Paid by L. S. Humphrey, com'r,*		$8,272 79	
Paid by auditor general,		343 58	
			8,616 37
For locomotives and cars.			
Paid by L. S. Humphrey, com'r,			3,242 53
Carried forward,			$

*In the statements above given for expenditures, by L. S. Humphrey, commissioner, the board have only given the amount of such vouchers as have been audited since the 1st December, 1839, as appears by their books.

Digitized by Google

Brought forward,		$
For grubbing.		
Paid by L. S. Humphrey, com'r,		2,488 27
For grading.		
Paid by L. S. Humphrey, com'r,		57,695 82
For superstructure.		
Paid by L. S. Humphrey, com'r,	$20,681 16	
do auditor general,	513 00	
		21,194 16
For bridges.		
Paid by L. S. Humphrey, com'r,		9,193 89
For depot buildings.		
Paid by L. S. Humphrey, com'r,		14,768 56
For contingent expenses.		
Paid by L. S. Humphrey, com'r,	$2,317 37	
do auditor general,	700 00	
		3,017 37
For damages.		
Paid by L. S. Humphrey, com'r, right of way,	$1,350 00	
do do fencing,	506 02	
do auditor general, right of way,	41 50	
		1,897 52
Total expenditures,		$122,114 49
Recapitulation.		
Expended by L. S. Humphrey, commissioner,	$120,051 89	
do auditor general,	2,062 60	
		$122,114 49
Northern Railroad—For engineering.		
Paid by Rix Robinson, com'r,	$1,507 68	
do auditor general,	573 43	
		$2,081 11
For grubbing.		
Paid by Rix Robinson, com'r,	$2,137 47	
do auditor general,	874 29	
		3,011 76
Carried forward,		$

Digitized by Google

Brought forward,		$
For grading.		
Paid by auditor general,		491 59
For bridges.		
Paid by Rix Robinson, com'r,		571 76
For contingent expenses.		
Paid by auditor general,		560 66
For damages.		
Paid by auditor general, for non-fulfillment of contract,		4,056 68
Total expenditure,		$10,773 56
Recapitulation.		
Expended by Rix Robinson, com'r,	$4,216 91	
do auditor general,	6,556 65	
		$10,773 56
Havre Branch Railroad—For engineering.		
Paid by L. S. Humphrey, com'r,		211 46
River Raisin and Lake Erie Railroad.		
For entire purchase of same, paid by auditor general,		$32,500 00
Clinton and Kalamazoo Canal—For engineering.		
Paid by L. S. Humphrey, com'r,	$3,939 08	
do auditor general,	3,140 97	
		$7,080 05
For grubbing.		
Paid by L. S. Humphrey, com'r,	$943 00	
do auditor general,	1,897 96	
		2,840 96
For excavation and embankment.		
Paid by L. S. Humphrey, com'r,	$23,363 50	
do auditor general,	66,004 57	
		89,368 07
For locks.		
Paid by L. S. Humphrey, com'r,	$3,107 04	
do auditor general,	44,723 45	
		47,830 49
Carried forward,		$

Digitized by Google

Brought forward,		$
For contingent expenses.		
Paid by L. S. Humphrey, commissioner,	$32 51	
do auditor general,	511 33	
		543 84
For dam at Frederick.		
Paid by auditor general,		610 88
For damages.		
Paid by L. S. Humphrey, commissioner, for right of way,	$1,012 55	
do do fencing,	200 00	
do auditor general, right of way,	4,887 70	
do do fencing,	358 20	
do do bridges,	2,807 11	
do do non-fulfillment of contract,	9,972 98	
		19,238 54
Total expenditure,		$167,512 78
Recapitulation.		
Paid by L. S. Humphrey, comm'r,	$32,897 68	
do auditor general,	134,615 10	
		$167,512 78
Saginaw Canal—For contingent expenses.		
Paid by auditor general,		$387 51
For damages.		
Paid by auditor general, for non-fulfillment of contract,		14,000 00
Total expenditure,		$14,387 51
Saut Ste Marie Canal—For contingent expenses.		
Paid by Rix Robinson, commissioner,	$58 33	
do auditor general,	30 60	
		$88 93
Improvement of Grand River—For engineering.		
Paid by Rix Robinson, commissioner,		$158 53
For dredging and clearing obstructions.		
Paid by auditor general,		1,048 70
Carried forward,		$

Digitized by Google

Brought forward,		$
For contingent expenses.		
Paid by auditor general,		267 33
Total expenditures,		$1,474 56
Recapitulation.		
Expended by Rix Robinson, comm'r,	$158 53	
do auditor general,	1,316 03	
		1,474 56
Improvement of St. Joseph River—For engineering.		
Paid by auditor general,		$66 67
For contingent expenses.		
Paid by auditor general,		116 00
For dredging and clearing obstructions.		
Paid by auditor general,		2,086 00
Total expenditures,		$2,268 67
Surveys and Instruments—For engineering.		
Paid by L. S. Humphrey, commissioner, for survey of St. Joseph river,		$29 07

Total recapitulation.

Expended on Central railroad,		$111,834 82
do Southern railroad,		122,735 49
do Northern railroad,		10,773 56
do Havre branch railroad,		211 46
do River Raisin and Lake Erie railroad,		32,500 00
do Clinton and Kalamazoo canal,		167,512 78
do Saginaw canal,		14,387 51
do Saut Ste Marie canal,		88 93
do Improvement of Grand river,		1,474 56
do Improvement of St. Joseph river,		2,268 67
do Surveys and instruments,		29 07
		$463,816 85
Expended by commissioners of late board,	$219,305 27	
do auditor general,	244,511 58	
		$463,816 85

Digitized by Google

Statement of expenditures on the works of Internal Improvement, from April 1, to November 30, 1840.

Central railroad,	$52,327 67
Southern railroad,	848 58
Northern railroad,	5,656 72
River Raisin and Lake Erie railroad,	32,500 00
Clinton and Kalamazoo canal,	128,635 44
Saginaw canal,	14,145 84
Improvement of Grand and Maple rivers,	1,080 70
Improvement of St. Joseph river,	2,268 67
	$237,463 62

—

Statement of amounts paid for contingent expenses of the board from December 1, 1839, to November 30, 1840.

Paid for clerk hire of late board,	$333 33	
stationery,	107 55	
		$440 88
clerk hire, present board,		357 92
		$798 80

—

Statement of appropriations and expenditures therefrom, on the works of Internal Improvement, up to November 30, 1840.

Central Railroad.

Total amount of all appropriations,	$855,000 00
do do expenditures,	868,897 92
Excess of expenditures over appropriations,	$13,897 92

Southern Railroad.

Total amount of all appropriations,	$550,000 00
do do expenditures,	520,181 95
Unexpended balance,*	$29,818 05

Northern Railroad.

Total amount of all appropriations,	$150,000 00
do do expenditures,	70,894 34
Unexpended balance,	$79,105 66

* This amount retained and not drawn upon by auditor general, to apply on balance due from L. S. Humphrey, commissioner.

Digitized by Google

Havre Branch Railroad.

Total amount of all appropriations,	$20,000 00
do do expenditures,	910 84
Unexpended balance,	$19,089 16

Clinton and Kalamazoo Canal.

Total amount of all appropriations,	$305,000 00
do do expenditures,	293,832 97
Unexpended balance,*	$11,167 03

Saginaw Canal.

Total amount of all appropriations,	$62,000 00
do do expenditures,	47,577 19
Unexpended balance,	$14,422 81

Saut Ste Marie Canal.

Total amount of all appropriations,	$50,000 00
do do expenditures,	3,041 86
Unexpended balance,	$46,958 14

Canal around the Rapids of Grand River.

Total amount of all appropriations,	$25,000 00
do do expenditures,	130 53
Unexpended balance,	$24,869 47

Improvement of Grand and Maple Rivers.

Total amount of all appropriations,	$30,000 00
do do expenditures,	22,478 18
Unexpended balance,	$7,521 82

Improvement of Kalamazoo River.

Total amount of all appropriations,	$8,000 00
do do expenditures,	5,086 93
Unexpended balance,	$2,913 07

*The sum of $17,669 31, is charged to the appropriation on this work, as also to the appropriation for surveys and instruments; the amount properly chargeable, is only its proportion of the excess of $17,685 99, above given, which will probably increase the amount to $20,000.

Digitized by Google

Improvement of St. Joseph River.

Total amount of appropriations,	$25,000 00
do do expenditures,	2,268 67
Unexpended balance,	$22,731 33

Surveys and Instruments.

Total amount of all appropriations,	$20,000 00
do do expenditures,	37,625 99
Excess of expenditures over appropriations,	$17,625 99

Improvement of State Salt Springs.

Total amount of all appropriations,*	$18,000 00
do do expenditures,	18,000 00

Recapitulation.

Total amount of all appropriations,		$2,118,000 00
do do expenditures, from May 10, 1837, to November 30, 1840,		1,890,927 37
Excess of appropriations over expenditures,		$227,072 63
Amount of unexpended balances above,	$258,596 54	
From which deduct amount of excess as above, on Central railroad,	$13,897 92	
Survey and instruments,	17,625 99	
	31,523 91	
		$227,072 63

*The sum of $10,000 was appropriated on this work at the last session of the legislature, but the fund not specified, nothing has been drawn thereon.

Statement of receipts upon, and expenditures for running, the Central railroad, from December 1, 1829, to November 30, 1840.

Receipts.

For transportation of 25,165 passengers to and from Detroit and Ann Arbor and way,		$32,269 66
do of 5,177,947 pounds merchandize,	$11,874 90	
do of 378,582 " agricultural products,	705 78	
do of 43,371 barrels flour,	10,468 35	
Carried forward,	$	$

Digitized by Google

Brought forward,		$	$
For transportation of 106,258 feet lumber and staves,		496 28	
do of 1,436 thousand shingles,		823 82	
do of 481 cords wood,		356 11	
do of United States' troops, provisions, and mails,		1,582 35	
			26,307 59
Total receipts,			$58,577 25

Expenditures for repairs of road.

Paid by collectors under late board,	$2,303 26	
do John Van Fossen, acting com'r,	10,142 57	
		12,445 83

Repairs of Rouge bridge.

Paid by collectors under late board,	50 18

Repairs of machinery and cars.

Paid by collectors under late board,	$2,932 77	
do John Van Fossen, acting com'r,	6,869 53	
		9,802 30

Expenses of freight and passenger trains.

Paid by collectors under late board,	$1,519 41	
do John Van Fossen, acting com'r,	2,430 47	
		3,949 88

Expenses of weighmaster's department.

Paid by collectors under late board,	$1,187 46	
do John Van Fossen, acting com'r,	1,520 20	
		2,707 66

Expenses of Detroit depot.

Paid by collectors under late board,	75 00

Expenses of Dearborn station.

Paid by collectors under late board,	$442 51	
Carried forward,	$	$

Digitized by Google

Brought forward,	$	$	$
Paid by John Van Fossen, acting com'r,	482 91		
		925	42

Expenses of Wayne station.

Paid by collectors under late board,	$566 07		
do John Van Fossen, acting com'r,	720 71		
		1,286	78

Expenses at Ypsilanti station.

Paid by collectors under late board,	$404 53		
do John Van Fossen, acting com'r,	593 92		
		988	45

For expenses of Ann Arbor station.

Paid by collectors under late board,	$625 10		
do John Van Fossen, acting com'r,	1,138 59		
		1,763	69

For expenses of collector's office.

Paid by collectors under late board,	$701 85		
do John Van Fossen, acting com'r,	33 50		
		735	35

Pay of locomotive engineers.

Paid by collectors under late board,	$1,450 74		
do John Van Fossen, acting com'r,	2,519 00		
		3,969	74

For oil.

Paid by collectors under late board,	$650 36		
do John Van Fossen, acting com'r,	1,090 51		
		1,740	87

For wood.

Paid by collectors under late board,	$365 67		
Carried forward,	$	$	$

Digitized by Google

Brought forward,	$	$	$
Paid by John Van Fossen, acting com'r,	155 67		
		521 34	
Total expenses,			40,972 49
Net receipts into the treasury,			$17,604 76
Add to which, this amount for expenditures from receipts chargeable to construction,		$1,168 80	
Add amount due from United States, for transportation of mails,		1,603 00	
Add amount due from United States quarter master's department, for transportation of troops and provisions,		260 85	
			3,032 65
Net earnings of the road,			$20,637 41

Recapitulation of expenditures.

Amount paid by collectors under late board, from December 1, 1839, to April 22, 1840, four months and twenty-two days,	$13,274 91
do paid by John Van Fossen, acting commissioner, from April 23, to November 30, 1840, seven months and eight days,*	27,697 58
	$40,972 49

Recapitulation of amounts paid into treasury.

By collectors under late board, being for an excess of receipts over expenditures, from December 1, 1839, to April 22, 1840, viz:		
By A. T. Hall, collector,	$504 74	
Carried forward,	$	$

*In the amount here exhibited as expended by John Van Fossen, acting commissioner, the following sums have been paid from the receipts, which are chargeable to the construction of the road, and should be re-paid from future appropriations, viz:

For account paid for work done in grading 3d division,	$925 22	
For account paid for painting dwelling house at Wayne,	39 20	
For transportation on spike and connecting plate for 4th division,	204 38	
		$1,168 80
There are also included in said amount, this sum, being for extraordinary repairs of a break in machinery, which occurred under the late board, and should have been paid by them.	$817 50	
Also, this sum for payment for cattle killed while the road was under the charge of the late board,	86 00	
		903 50
Deduct this amount,		$2,072 30

from $27,697 58, will leave $25,625 28, as the proper expenses of the road, as paid by John Van Fossen, acting commissioner.

Digitized by Google

Brought forward,	$	
By T. Clarke, collector,	39 65	
J. T. Allen, do	803 47	
		$1,347 86
By John Van Fossen, acting commissioner, being an excess of receipts over expenditures, from April 23 to November 30, 1840,		16,256 90
		$17,604 76

Statement showing the amount of receipts upon, and expenditures for running the Central Railroad, from April 1, to November 30, 1840, (monthly.)

April.

Receipts.

For transportation of passengers,	$2,292 88	
do do freight,	1,454 43	
		$4,447 31

Expenditures.

For repairs of machinery and cars,	$371 00	
do do road,	759 68	
For expenses of frei't and passenger trains,	438 97	
do do weighmaster's departm't,	246 94	
do do Dearborn station,	38 50	
do do Wayne do	38 76	
do do Ypsilanti, do	55 40	
do do Ann Arbor, do	137 09	
do pay of engineers,	285 50	
do oil,	123 70	
do wood,	79 50	
		2,575 04
Excess of receipts over expenditures,		$1,872 27
From which is to be deducted this sum, being for an excess of expenditures over receipts for the month of March preceding, and paid from receipts of this month,		897 08
Net receipts,		$975 19

May.

Receipts.

For transportation of passengers,	$3,833 30	
Carried forward,	$	

Digitized by Google

Brought forward,	$	
For transportation of freight,	2,274 45	
		$6,115 75

Expenditures.

For repairs of machinery and cars,	$442 84	
do do road,	*557 53	
do expenses of freight and passenger trains,	106 22	
do do weighmaster's departm't,	173 87	
do do Dearborn station,	103 75	
do do Wayne do	165 63	
do do Ypsilanti do	115 44	
do do Ann Arbor do	139 07	
do pay of engineers,	321 75	
do wood,	107 06	
do oil,	271 80	
		2,504 06
Excess of receipts over expenditures,		$3,652 79

June.

Receipts.

For transportation of passengers,	$4,169 60	
do do freight,	1,947 51	
		$6,117 11

Expenditures.

For repairs of machinery and cars,	$337 73	
do do road,	1,143 11	
do expenses of freight and passenger trains,	411 79	
do do weighmaster's departm't,	170 32	
do do collector's office, (stationery,)	33 50	
do do Dearborn station,	61 75	
do do Wayne do	86 90	
do do Ypsilanti do	67 38	
do do Ann Arbor do	155 25	
do pay of engineers,	337 50	
do oil,	82 69	
		2,887 02
Excess of receipts over expenditures,		$3,230 09

*This item is increased by the payment of this amount for grading third division, between Ypsilanti and Ann Arbor, $412 25.

Digitized by Google

July.

Receipts.

For transportation of passengers,	$3,332 73	
do do freight,	910 60	
		$4,243 33

Expenditures.

For repairs of machinery and cars,*	$1,419 79	
do do road,†	1,599 07	
do expenses of freight and passenger trains,	303 01	
do do weighmaster's departm't,	167 54	
do do Dearborn station,	63 88	
do do Wayne do†	118 35	
do do Ypsilanti do	69 69	
do do Ann Arbor do	156 62	
do pay of engineers,	315 00	
do wood,	31 50	
do oil,	124 70	
		4,369 15
Excess of expenditures over receipts,		$115 82

August.

Receipts.

For transportation of passengers,	$2,955 75	
do do freight,	1,476 42	
		$4,432 17

Expenditures.

For repairs of machinery and cars,‡	$1,103 99	
do road,‖	1,074 27	
Expenses of freight and passenger trains,	490 32	
do weighmaster's department,§	275 91	
do Dearborn station,	65 88	
do Wayne do	78 36	
do Ypsilanti do	71 76	
do Ann Arbor do	104 63	
For pay of engineers,	348 00	
Carried forward,	$	$

*This item is increased in this amount by the payment for driving wheels and crank for engine, ordered by late board, $817 50.

†These items are increased in this amount by the payment of sundry persons, for grading third division, (between Ypsilanti and Ann Arbor,) and painting house at Wayne station, $512 97.

‡This item is increased this sum by the payment for castings, delivered from December, 1839, to August, 1840, $450 00

‖This item is increased by the payment of this sum for services of collector for months of April, May, June and July, 189 84

§This item is increased by the payment of this sum for rent of warehouse from 15th April to August 1, 105 00

Digitized by Google

Brought forward,		
For oil,	291 39	
		$3,904 61
Excess of receipts over expenditures,		$527 56

September.

Receipts.

For transportation of passengers,	$2,934 81	
do do freight,	2,652 23	
		$5,587 04

Expenditures.

For repairs of machinery and cars,	$587 83	
do road,	898 89	
Expenses of freight and passenger trains,	262 14	
do weighmaster's department,	193 81	
do Dearborn station,	59 90	
do Wayne do	85 52	
do Ypsilanti do	85 90	
do Ann Arbor do	127 06	
For pay of engineers,	308 25	
		2,609 30
Excess of receipts over expenditures,		$2,977 74

October.

Receipts.

For transportation of passengers,	$4,618 94	
do do freight,	4,847 83	
		$9,466 77

Expenditures.

For repairs of machinery and cars,	$543 19	
do road,	1,968 95	
Expenses of freight and passenger trains,	251 41	
do weighmaster's department,	200 51	
do Dearborn station,	64 00	
do Wayne do	93 00	
do Ypsilanti do	90 00	
do Ann Arbor do	158 62	
For pay of engineers,	322 50	
do oil,	176 11	
do wood,	17 11	
		$3,885 40
Excess of receipts over expenditures,		$5,581 37

Digitized by Google

November.

Receipts.

For transportation of passengers,	$2,735 50	
do do freight,	4,248 89	
		$6,984 39

Expenditures.

For repairs of machinery and cars,*	$2,284 01	
do road,†	2,239 08	
Expenses of freight and passenger trains,‡	493 86	
do weigh master's department,	214 19	
do Dearborn station,	63 75	
do Wayne, do	93 75	
do Ypsilanti do	93 75	
do Ann Arbor do	160 25	
For pay of engineers,	280 50	
do oil,	143 82	
		6,067 26
Excess of receipts over expenditures,		$917 13

*This item is increased by the payment of this sum for castings obtained in the month of October, and for the purchase of a pair of truck wheels, necessary to replace those in use under one of the engines, $1,146 50

†This item is increased by the purchase of a quantity of spike to last through the winter, $227 36

Also, for the transportation on connecting plate and spike to be used for construction, 204 38 — $431 74

‡This item is increased by the payment of an account of T. F. Sheldon, for carrying South Plymouth mail to and from the cars, $68 50

Also, for the payment of an account for water rent, from December 1, 1840, to June 1, 1841, 75 00 — $143 50

—

Statement of appropriations required to meet outstanding claims against the works of Internal Improvement, up to November 30, 1840.

For amount of estimates and accounts afloat, for construction of Southern railroad, duplicates of which are filed in the office of the board,*	$64,560 64
For amount advanced to R. M. Morrison, superintendent on said road, by bank of Michigan,	1,000 00
For amount advanced by Bank of Michigan, for payment of estimates and accounts on fourth division Central railroad,	34,387 54
For amount due contractors on said road, for per centages retained,	3,828 30
Carried forward,	$

*The board have been informed that estimates and accounts, other than those here stated, are afloat, for work done on this road, but they have no knowledge of the correctness or amount of the same

Digitized by Google

	$
Brought forward,	
For amount of estimates and accounts afloat, for construction of fifth and sixth divisions of said road,	17,476 10
For amount advanced from receipts on Central road, as per preceding statement, for payment of accounts for construction,	1,168 80
For amount of cost and transportation on two locomotive engines, to Baldwin, Vail & Hufty, (one for Central and one for Southern road,) at $7,250 00 each,	14,500 00
For amount due E. Corning & Co., for 6,000 lbs. spike, delivered for construction of Southern railroad, and also for $10,100 lbs. for construction of Central railroad, in all 16,100 lbs,	1,449 00
For amount of transportation on 113 $\frac{575}{2000}$ tons of railroad iron from Buffalo to Detroit, and used in the construction of the Central railroad, about	600 00
	$138,970 38

The board would also recommend appropriations for finishing the portion of the Central road between Dexter and Jackson, which is now in progress of construction, and, if within the abilities of the state, to put that portion between Jackson and Marshall under contract, and complete that portion of the Southern road between Adrian and Hillsdale.

Digitized by Google

Digitized by Google

Statement showing the amount of cost of work done, and mate-
. road, from Ann Arbor to Jackson, up to December

	Fourth division, Ann Arbor to Dexter; length, 10 miles, 1,300 feet.	
		Cost.
Excavation, (including hardpan and rock,) and embankment,	297,471 cubic y'ds,	$50,602 24
Grubbing and clearing,		1,466 50
Bridges, culverts and docking.		22,366 49
Extra work, including mucking, ditching, road-crossings, stone walling and teaming,		4,111 76
Pile road, including materials,		1,213 13
Rails,	367,775 feet,	4,415 48
Cross ties,	21,500	5,371 40
Sills and plank,	732,147 feet,	8,773 76
Wedges,	41,322	413 22
Laying track,	3,107½ rods,	9,410 50
Filling track, dressing road and ditches,	2,708½ rods,	1,968 68
Spike for ties—6 inch boat,	9,350 lbs.	935 00
Spike for iron—4½ inch counter sunk,	15,050 lbs.	1,505 00
Depots and stations, including tracks and fixtures,		2,718 39
		$115,271 55

Digitized by Google

rials provided, on the 4th, 5th and 6th divisions, Central rail-
1, 1840. *Distance, 39 miles, 2,280 feet.*

Fifth division, Dexter to county line; length, 14 miles, 3,680 feet.		Sixth division, county line to Jackson; length, 14 miles, 2,580 feet.	
	Cost.		Cost.
312,633 cubic y'ds,	$44,367 36	165,231 cubic y'ds,	$24,069 91
	573 00		1,203 00
	673 00		514 52
	1,982 01		2,342 94
	1,333 52		
101,220 feet,	1,501 29	36,022 feet,	540 33
		10,865	2,360 30
	$50,440 18		$31,061 00

Total amount expended, for labor and materials, on the 4th, 5th and 6th divisions, up to the 1st of December, 1840, exclusive of iron, $196,772 73.

JOHN M. BERRIEN, *Chief Engineer.*

Digitized by Google

Statement showing the amount and cost of work done and mate-
railroad, from Ann Arbor to Jackson, between

	Fourth division, Ann Arbor to Dexter.	
		Cost.
Excavation, (including hardpan and rock,) and embankment,	62,363 cubic y'ds,	$12,844 61
Grubbing and clearing,		243 00
Bridges, culverts and docking,		6,247 65
Extra work, including mucking, ditching, road-crossings, stone walling and teaming,		3,351 03
Pile road, including materials,		1,213 13
Rails,	213,895 feet,	2,569 76
Cross ties,	5,590 "	1,380 81
Sills and plank,	152,345 "	1,816 14
Wedges,	35,989	359 89
Laying track,	2,962½ rods,	8,975 50
Filling track, dressing road and ditches,	2,708½ "	1,968 68
Spike for ties—6 inch boat,	1,000 lbs.	111 88
Spike for iron—4½ inch counter sunk,	10,100 "	1,010 00
Depots and stations, including tracks and fixtures,		2,718 39
		$44,810 47

Digitized by Google

rials provided on the 4th, 5th and 6th divisions of the Central the 1st of April and 1st of December, 1840.

Fifth division, Dexter to county line.		Sixth division, county line to Jackson.	
	Cost.		Cost.
81,748 cubic y'ds,	$13,822 70	15,501 cubic yards,	$3,135 86
	211 00		165 00
	320 13		157 50
	99 50		18 50
57,750 feet,	873 18	28,485 feet,	427 29
		8,443	1,857 46
	$15,326 51		$5,761 61

Total amount expended for labor and materials on the 4th, 5th and 6th divisions, between the 1st of April and the 1st of December, 1840, exclusive of iron, $65,898 59.

JOHN M. BERRIEN, *Chief Engineer.*

Digitized by Google

Statement showing the amount of work remaining to be done and Central railroad, from Ann Arbor to Jackson,

	Fourth division, Ann Arbor to Dexter.	
		Cost
Excavation, (including hard pan and rock,) and embankment,	1,395 cubic yards,	$251 10
Grubbing and clearing,		
Bridges, culverts and docking,		
Extra work, including mucking, ditching, road crossings, stone walling and teaming,		395 50
Pile road, including materials,		
Rails,	4,200 feet,	50 40
Cross ties,		
Sills and plank,	1,666 feet,	20 00
Wedges,		
Laying track,	126 rods,	378 00
Filling track, dressing road and ditches,	519½ do	391 50
Spike for ties, 6 inch boat,		
Spike for iron, 4½ do, countersunk,		
Depots and stations, including tracks and fixtures,		560 00
Repairs of damages consequent upon delay in execution of the work,		
		$2,046 50
Contingencies and engineering,	10 per centum,	204 65
		$2,251 15

Digitized by Google

materials to be provided on the 4th, 5th and 6th divisions of the December 1, 1840, *with an estimate of cost.*

Fifth division, Dexter to county line.		Sixth division, county line to Jackson.	
	Cost.		Cost.
124,565 cubic y'ds,	$22,136 87	44,184 cubic yards,	$7,920 33
	385 00		155 00
	4,025 00		2,286 00
	3,000 00		3,000 00
	1,500 00		2,750 00
360,772 feet,	5,134 38	425,978 feet,	6,389 67
27,750	6,105 50	16,885	3,714 70
882,000 feet,	10,584 00	867,000 feet,	10,414 00
55,500	555 00	55,000	550 00
4,764 rods,	14,292 00	4,698 rods,	14,094 00
4,764 do	4,764 00	4,698 do	4,698 00
14,000 lbs.,	1,400 00	14,000 lbs.,	1,400 00
21,000 do	2,100 00	21,000 do	2,100 00
	2,000 00		14,000 00
$250 00 per mile,	3,674 10	$250 00 per mile,	3,622 15
	$81,655 85		$77,093 85
10 per cent,	8,165 58	10 per cent,	7,709 38
	$89,821 43		$84,803 23

Total amount required to complete the 4th, 5th and 6th divisions, exclusive of iron and right of way, $176,875 81. In ascertaining the amount as above, contract prices have been used, as far as the work has been contracted for.

JOHN M. BERRIEN, *Chief Engineer.*

Digitized by Google

Report of Alvin Turner, Chief Engineer.

To the honorable the Board of Internal Improvement, of the state of Michigan:

GENTLEMEN—In compliance with your instructions, I have the honor to submit to you a report of the condition and progress of the Clinton and Kalamazoo canal, the amount of estimates made since the 1st of April last, and the estimated cost of completing the present contracts.

There has been no expenditures on the three first sections, being that portion of the canal on which the operations were suspended by the late board, for the purpose of changing the location; and for the facts relative to that portion of the canal, I would beg leave to refer you to former reports of other engineers. It is a matter much to be regretted, that this work should have been so much delayed as to prevent its completion as far as Mount Clemens by the opening of spring, as it would open a communication by water, to Detroit, an object of much interest to the state, as well as the citizens living in the vicinity of the canal; and as the canal cannot be used to much extent, in its present state, I would particularly recommend its early completion.

Several sections are already completed, and others will probably be finished by the 1st of January. The remaining sections are progressing with sufficient rapidity to insure their completion by the opening of spring. The locks, with the exception of three, between the villages of Utica and Frederick, are nearly all completed.

The estimates made for work done, since the 1st of April, amount to	$107,434 23
The estimated cost for completing the contracts to the village of Rochester, including the per centage which will become due on their completion, amounts to	41,749 10
The expense estimated for the dam now building across the Clinton river at Frederick, amounts to	1,331 80
On which has been estimated	410 83
Leaving a balance of the estimated expense of	$920 97

It may not perhaps be amiss, to call your attention to the importance of extending this work to the summit level, a distance of about thirteen miles, to the proposed point for taking the waters of the Clinton river as a feeder.

An examination of this section of the country, would satisfy any person, that the extension would promote the interest of the state, as it opens into an extensive wheat growing and

Digitized by Google

agricultural district, and would afford the cheapest and best facilities for sending the surplus products to market, which would prove an incentive to industry, and induce an extensive cultivation of the rich and arable land which now lie unimproved.

When it is taken into consideration, that the expense to the farmer of marketing his products, is one-fourth of the amount, and the high price he has to pay the merchant for articles of merchandize, at present costing him ten-fold more than would be his portion of a yearly incumbrance on the sum necessary to the completion of the canal to the summit; and the advantages resulting to the state, when taken in connection with that portion of the canal which will be ready for use on the opening of spring, the amount of water power created by its construction, and the increased amount of business which it would add to the canal, is too obvious to need any further remarks.

All which is respectfully submitted.

ALVIN TURNER, *Chief Engineer.*

Rochester, 24th November, 1840.

—

Account of instruments, tools and furniture belonging to the state of Michigan, in possession of the engineer department, Central railroad, November 24, 1840.

Office at Ann Arbor.

One transit; two levels; one flag staff; 1 one hundred feet chain; one ax; one hatchet; two tin map cases; one wooden pail; one box stove and pipe; one large drawing table; three leveling staves; one small drawing table; two paper cases; one drawing board; six chairs; one ink stand; one sand box; one set drawing instruments, (incomplete;) one ivory rule or scale; four rulers; two triangles; three measuring tapes.

At Dexter.

Two transits; two lines; one compass; two leveling staves; one writing desk; two measuring tapes; two rulers; 1 one hundred feet chain.

At Jackson.

Two lines; one transit; one compass; one leveling staff; two flag staffs; 1 one hundred feet chain; one ax; one hatchet; two measuring tapes; two rulers; two triangles; one ink stand; one sand box; one tin map case.

On the line.

One hundred and thirty-eight thousand two hundred and thirty-seven feet, five by seven, rails; ten thousand eight hundred and sixty-five cross ties; two pile machines, (incomplete.)

JOHN M. BERRIEN, *Chief Engineer.*

Digitized by Google

Alvin Turner's statement of property in his charge, belonging to the state, November 24, 1840.

A. H. ADAMS, *Secretary to the Board of Internal Improvement:*

The following is a list or statement of instruments and other property, belonging to the state, and under my charge:

Two leveling instruments; two leveling staffs; one compass; one surveyor's chain; two flag staffs; four measuring tapes; one ax; two hatchets; two field book cases; one book chest; one trunk; three tables; four chairs; four rulers; one stove; one shovel and tongs; three inkstands; two sand boxes; two brooms; two candlesticks; one pitcher.

Materials delivered for the construction of work on that portion of the canal on which the work was suspended by the late board:

Twenty-nine thousand three hundred and ninety-three feet of timber, of which two thousand four hundred and ninety-seven feet has been used in the construction of a dam across the Clinton river; eighty-four thousand three hundred and twenty-eight feet of lumber of which two thousand two hundred and eighty has been used for the dam; five hundred and eighty-four barrels of lime, of which five and two-thirds barrels have been used on section fourteen; one thousand one hundred and sixty-eight perch of stone.

Yours, &c.,

ALVIN TURNER, *Chief Engineer.*

Rochester, 24th November, 1840.

Schedule of state property in office of Board of Internal Improvement, Detroit.

One writing desk; one iron chest, with two sets brass keys, cost $315; one set of books of accounts board of internal improvement; one set of books of accounts acting commissioners Central railroad; one set of books of accounts Detroit and St. Joseph railroad company; one pine drawing table; one cherry writing table; two stoves and pipe, (one large, one small;) one pair shovel and tongs; one fire board; one fire board, covered with zinc; four spittoons; eight flag bottom chairs; four wood bottom chairs; one black walnut paper case; one pine paper case; one wafer box; one counter brush; one ash kettle; one porcelain slate; one cherry ruler; one poplar stool; four inkstands, (three large, one small;) three sand boxes, (two large, one small; sundry stationery, consisting of letter paper, quills, ink, wafers, black sand, and printed forms of accounts, &c.; sundry vouchers for expenditures on public works; sundry papers under control of board, consisting of contracts, deeds of releases, communications, originals of reports of boards and committees thereof, engineers' reports, proposals for contracts, &c.,

Digitized by Google

sundry printed reports of officers of this and of other states; one copy of revised statutes of this state; one copy each of session laws for 1837, 1838, 1839, 1840;
1 Farmer's map of Michigan;
1 do do the city of Detroit;
1 Lay's do United States, cost $8 00;
1 bound do Northern railroad;
1 do do Clinton canal;
1 do do Saginaw canal;
1 do do Southern railroad from Centreville to Niles;
1 unbound do do do
1 do do Southern railroad;
1 do do Clinton canal from Mount Clemens to Frederick;
1 do do do do Rochester;
1 do do do in Livingston and Ingham counties;
1 do do ship canal from Belvidere to Mt. Clemens;
1 do do Red Cedar survey of Clinton canal;
1 do do Northern railroad;
1 do do Saut Ste Marie canal;
3 do do Grand River;
1 do do canal around rapids of Grand river;
1 do do St. Joseph river;
1 do do canal from Union City to Homer;
1 do do do Homer to Dexter;
4 profiles of Clinton canal;
2 do Northern railroad;
1 do survey of Southern railroad in Cass county;
1 do St. Joseph river;
1 do canal from Union City to Homer;
7 do Central railroad;
1 level and staff, one compass;
1 book field notes improvement of Grand river;
1 bundle field notes survey in Cass county;
1 box containing books and papers of Clinton canal;
1 basket containing books and papers of Northern railroad and Saginaw canal;
part box sperm candles, about twenty pounds.

A. H. ADAMS,
Secretary Board Int. Improvement.

Office Board Int. Imp., Detroit, Nov. 25, 1840.

Schedule of state property in office used by Collector on Central railroad, at Detroit.

One stove and pipe; one iron basin; one pair shovel and tongs; one table; one Farmer's map of Michigan; one book case; sundry account books; one ink stand; sundry way bills filed; one sand box; ruler; two old candlesticks: one pair bro-

Digitized by Google

ken snuffers; four common chairs; one flag bottom chair; sundry articles of stationery, consisting of blank duplicates, accounts and pay rolls, way bills, writing paper, hand bills, rates of toll, quills, metallic pens, sand, ink, &c., &c.

A. H. ADAMS,
Secretary Board Internal Improvement.

Report of Benjamin Briscoe, Superintendent machinery, Central railroad.

To the Board of Commissioners of Internal Improvement of Michigan:

GENTLEMEN—Annexed I have the honor to submit to your honorable body, a schedule of state property under my charge, with the supposed value of the same up to this time, which valuation is considered to be about their real worth. By reference to the report of George Gibson, late superintendent of the car shop, and also my report, made in April last, it will be seen that the number of passenger and burden cars and locomotive engines is reduced in my report. In May last, by direction of the board, there was shipped to Monroe for the use of the Southern railroad, the following property, valued as follows, to wit:

1 locomotive engine, (Ypsilanti,)	$6,000 00
2 burden cars, small, $300,	600 00
2 passenger do do 700,	1,400 00
1 eight wheel rack,	450 00
1 set stocks, taps, dies and chasers,	30 00
6 pedestals, boxes and caps,	20 00
2 extra springs and spring steel,	20 00
Extra brasses for truck,	10 00
	$8,530 00

which will account for said reduction. There are at present in a partial state of completion, two small burden cars and two large passenger cars, which I would respectfully recommend should be completed ready for use, whenever funds may be provided for that purpose; and also, that a sufficient quantity of timber and lumber should be provided for the construction of a greater number of burden cars than are at present in use upon this road, as the business of the past season has fully tested the fact, that the number in use has not been sufficient to do the amount of business required of them, much less the increase which will be produced by the further extension of the road to Dexter and Jackson; and this lumber will require considerable seasoning before it will be fit for use.

BENJAMIN BRISCOE,
Superintendent Machinery C. R. R.

Digitized by Google

3 locomotive steam engines, worth	$20,000 00
1 " Pittsburg " run down,	1,500 00
1 crank and wheel for engine, extra,	600 00
10 car wheels and axles, "	1,300 00
3 large passenger cars, at $1,300 each,	3,900 00
2 small " " 700 "	1,400 00
2 baggage " 400 "	800 00
17 small burden " 350 "	5,950 00
2 large " " 550 "	1,100 00
8 racks, worth $500 each,	4,000 00
1 lot patterns for engines and cars,	1,000 00
1 roll wire gauze, for spark arresters,	30 00
3 lathes, with tools,	300 00
3 sets blacksmiths' tools,	400 00
7 vices, hammers, drills, stocks, taps and dies,	300 00
4 stoves and pipe,	40 00
2 grind stones,	10 00
1 Fairbanks' patent scales,	57 00
3 tons old iron, wrought, at 4d,	240 00
147 lbs new iron, "	12 00
2 tons old spring steel,	150 00
2½ " new springs and steel,	400 00
2½ " " cast iron,	250 00
1 " old "	35 00
117 lbs old copper,	20 00
187 bushels charcoal,	9 00
200 " hard charcoal,	50 00
1 dozen shovels,	15 00
1 dozen pails,	4 50
2 wheel barrows,	10 00
1,200 lbs palm oil,	180 00
60 gallons sperm oil,	82 50
12 work benches and vices in car shop,	120 00
2 glue kettles,	5 50
1 furnace,	1 25
3 hand saws,	2 25
4 bench planes,	3 00
9 augurs,	5 00
1 old brace and bits,	1 75
11 old planes,	10 00
1 slick,	1 50
1 ⋈ cut saw,	3 00
2 hand axes,	4 00
3 wrenches,	2 00
3 rules,	3 00
1½ dozen door locks,	18 00
32 gross screws,	26 00
3 sets door slides,	15 00

Digitized by Google

30 hand screws,	$22 00
2 frames burden cars,	31 00
1 frame for large passenger car,	400 00
1 frame partly framed,	80 00
4 truck frames for large cars,	40 00
45 papers tacks,	5 50
308 yards fringe,	154 00
90 yards lace,	16 00
1 canvass roof for car,	8 00
14 yards damask,	7 00
16,747 feet oak and ash plank,	251 20
3,248 feet oak and pine boards,	64 96
9,000 feet whitewood boards,	90 00
208 cords wood,	416 00

Timber enough in yard for twelve cars.

BENJAMIN BRISCOE,
Superintendent Machinery and Cars, C. R. R.

To the Board of Commissioners of Internal Improvement of the state of Michigan:

Daniel B. Brown, superintendent of repairs on the Central railroad, begs leave to make the following report:

On the 15th of May last, I received notice of my appointment to this office; entering immediately upon its duties, my attention was first called by the acting commissioner to the temporary bridge that had been thrown across the River Rouge, about which, the public mind had been considerably excited. On examining the bridge, I found that a considerable amount of flood wood had lodged against it, and had created an under current in the stream, which was fast washing out the foundations of the bents of the bridge; some of them having already settled some twelve or fourteen inches. I immediately removed the flood wood, and gave the stream its usual course, when it ceased to wash. I then proceeded to raise the track and bring it up level, and also to brace the linking bents; the first I did, by laying timbers lengthways on top of the bents, and crossways of the track and under the stringers; the next, by bracing with a framed T brace; these means have kept the bridge in its proper shape, and I have no doubt that if there should be no great rise or freshet in the stream, and not much flood wood should run, the bridge may be passed over with safety for some time to come; but in the event of a freshet, it might be swept away at once, and on the whole, I doubt the policy of delaying much longer to build a permanent bridge. The next thing that required particular attention, was that part of the road between Ann Arbor and Ypsilanti. It appears that the cars were put upon this part of the road before the

Digitized by Google

road was completed, and, in fact, it was left in an unfinished state; the extra expense from this fact, has been about twelve hundred dollars; the particular items has been in widening some of the deep cut excavations, which were through banks of quick sand. It was not unfrequently in the fore part of the season, that the width of the track was covered over two or three feet deep with sand, there being no width to the excavation originally, except barely to place the track down, it became absolutely necessary to go back upon the surface some twenty-five or thirty feet and widen the cut, and give the bank more slope; also to put frequent culverts under the road to lead off the veins of quicksand. The raising of the road on the embankments, built over what we call quagmires or marshes, without a permanent foundation, has been no small source of expense; some of them having settled more than two feet for two or three hundred feet in length; and unless the banks should soon find a solid basis, it must be taken up, and piles must be drove. That part of the road under my charge, which will require the greatest ordinary expenditure for the year to come, is between Detroit and Dearborn, as the timbers on this section are rapidly going to decay. I have the past season, put in upon this section, about 20,000 feet of new timbers. This part of labor is done under embarrassing circumstances. The frequent running of the trains of cars as has been the case all the latter part of the season, some six trains a day, which leaves but a small portion of time for the laborer to be employed in taking up a decayed timber, and putting in a sound one, which must be completed between the running of the different trains of cars. This seems to be an extravagant waste of time, but I am not able to suggest a remedy. The pine lumber and timber mentioned in the schedule attached, appears to be remnants and cullings of timber used in building the three bridges in the vicinity of Ypsilanti and Lowell, and some of it, I have no doubt, can be used in rebuilding the Rouge bridge. The tools, spike and timber used for repairs, are in constant use, and have to be frequently repaired and replenished.

Attached is a list of all the property belonging to the Central railroad in my possession.

All which is respectfully submitted.

DANIEL B. BROWN,

Sup't Repairs C. R. R., from Detroit to Ann Arbor.

A list of property in possession of Daniel B. Brown, in use on Central railroad, belonging to the state.

Four horses—one worth $50; one, $45; two, $25 each; two

Digitized by Google

cars for repairing; ten wood saws; nine spike hammers; two iron bars; seven stoves and pipe; three sets harness; six wheel barrows; three drills; half ton spikes; twelve shovels and eight spades; nine axes; six crow-foot iron bars; twenty thousand feet pine lumber and timber; four thousand feet oak rails; four dirt picks; two grind stones; four hundred cords of wood, (about.)

Schedule of state property, under charge of weighmaster, and in his office at Detroit.

1 bay horse, valued at	$40 00
1 cart and harness, cost $40, worth probably	30 00
1 cherry table and cover,	5 00
3 trucks, $8 00,	24 00
Sundry stove pipe,	7 00
1 portable weigh scales,	40 00
Lot oats and hay,	9 00
Blank pay-rolls, way-bills, sand, pad-locks, value not known.	
1 clock,* supposed to be worth	6 00
1 sand box, 1 inkstand, 1 ruler,	1 00
1 horse blanket, (new,) cost	1 00
1 hammer, probably worth	50

A. H. ADAMS,
Weighmaster, Central Railroad.

November 25, 1840.

* This clock was left in pledge some eighteen months since, for a passage from Ypsilanti to Detroit; it has never been redeemed; and by the expenditure of $2 63, (which was paid by me from moneys received for storage,) it has been put in good running condition, and is now in use at the warehouse in Detroit.

Report of R. M. Morrison, superintendent of Southern railroad.

To the honorable the Board of Internal Improvement of the state of Michigan:

GENTLEMEN—In compliance with your order of the 9th ult., I herewith furnish an inventory of all the property under my charge, belonging to the state, upon the Southern railroad, together with the accompanying remarks.

Inventory of cars, &c., on the road.

Three passenger cars; one locomotive and tender; two covered freight cars; one eight-wheeled lumber car; three four-wheeled lumber cars; four dirt cars.

Inventory of property in wood shop.

Wood work and running gears for two baggage cars; two

Digitized by Google

thousand three hundred and twenty-four feet of lumber, of different kinds; one frog pattern; eleven papers screws; ninety pounds nails; one stove pipe; four work benches; one cross track pattern; one oil cup pattern; one composition pattern; one valve pattern for cisterns; two saw boxes for locomotive; two boxes for locomotive.

Inventory of property in and about engine shop.

One anvil; one bellows; one vise; two sledges; two screw plates; five taps; one button set; one pair compasses; one tool for bending springs; one hundred pounds Russia iron; one hundred pounds scrap iron; one hundred and fifty pounds broken railroad iron; one table for bending springs; five chasers; two large oil cans; two calking tools; two wrenches; nine pair tongs; two drill stocks; two hammers; two sets sledges; one square; one ladle; one grindstone; one wheel-barrow; five pounds rosin; one tool rack; one iron rack; thirty pounds copper and old flues; seventy-five pounds lead; one driver; one copper oil kettle; one splitting chisel; three cold chisels; three punches; two counter-sinks; one spring swedge; two burning irons; one hardey; one pair callipers; twenty composition boxes; ten cast iron boxes; fifty pounds band iron; one wrench hammer; four small axletrees; two pounds emory; two mandrels; two small hammers; punch and sett; seven heading tools; one pick punch; four gripes; one set hammers; five drills; one small oil can; one hand-cart; three hundred pounds spring steel; six pounds English blister steel; four car springs; one thousand eight hundred pounds old castings; ten old files; seventeen new files; two stretches; two tins for oil.

Inventory of tools upon the road.

Eight shovels; two crowbars; two spades; one ax; one shackle bar; one broadax.

Inventory of property in depot.

Nineteen chairs; one fender, andirons, shovel and tongs; two inkstands; one stamp; one ream blank vouchers; one ream passenger way bills; one ream freight way bills; one level and tripod; one rod; one eight-day clock; one ream letter paper; one ream cap paper; one set books; two large tables; one one hundred foot chain; one stove pipe; one writing desk; two sand boxes; one lot quills, wafers, sand and ink; one book case; two small tables; one wafer box; one water pot; one sixty foot chain.

Inventory of property in various places.

1,000 bars iron; 1,200 end plates; 5,000 feet lineal of mud-sills; 200 cords wood; 4 sets car wheels, with axles, pedestals, boxes, &c.

Since the portion of the road between Monroe and Adrian

Digitized by Google

has been under my charge, about eight miles of iron have been laid down, which completes the ironing from the wharf to Adrian. Wells have been dug and pumps and cisterns erected at Adrian, Palmyra, Petersburg and Ida, and a pump and cistern at Monroe. The engine and wood shops at Monroe have been fitted up. A wood and well-house have been erected at Adrian, fifty feet by sixteen; also, a store house at Adrian, seventy feet by twenty. A considerable quantity of grading has been done on that portion of the road between LeRoy and Adrian, under the superintendence of the engineer. All the iron has been laid likewise, under his superintendence. A wood and well-house, fifty by sixteen, has been commenced and partly completed at Palmyra; one of the same dimensions has been contracted for at Ida. A building has been commenced at Petersburg, seventy feet by sixteen, intended for a wood and well-house, with a small store room connected. The turnout at Petersburg, which was before commenced, has been completed, ironed, and frogs, switches, &c. put in.

Considerable expense has been incurred in filling, ditching, draining, putting in necessary culverts, and otherwise repairing and preserving different parts of the road. An expensive culvert has been put in near the depot in Monroe, which was deemed necessary to preserve the road, and prevent damage to the adjacent property.

Three lumber cars have been built, and two baggage cars are built in part. The three passenger cars, and two covered freight cars have been painted.

The portion of the road between Monroe and Petersburg, is now in good condition; that between Petersburg and LeRoy is, in many places, bad, unfinished, and will require considerable expense in ditching, filling in, completing culverts, &c.

The Dundee branch is ready for ironing, with the exception of a small portion of grading. Nothing has been done on this work since I have had charge of the road. The expense already incurred, since I have had charge of this part of the road, for work, materials, &c., under my superintendence, amounts to about four thousand eight hundred dollars.

To complete necessary arrangements for running from Monroe to Adrian, will probably require about one thousand dollars.

The cars commenced running regularly from Monroe to Adrian and back, daily, on the 23d inst. The whole receipt for freight and passengers, up to the present, amounts to about two hundred dollars.

Since the purchase of the River Raisin and Lake Erie railroad by the state, I have extended said road near two thousand feet, to connect with the Southern road. The superstructure for this part of the road has all been laid, and switch put in. About one mile of the old road has been newly ribboned, and

Digitized by Google

the ribbons procured for the remainder. About one mile of iron has been laid upon this road, commencing at the junction with the Southern road. The expense already incurred on account of this work, amounts to about fifteen hundred dollars, and, to complete it to the bay, exclusive of the cost of iron, will probably cost about eight hundred dollars.

A large proportion of this expense is owing to the high grading required in the curve near the connection with the Southern road.

Individual property has sustained some damage from the extension of the River Raisin and Lake Erie railroad, the amount of which cannot be very great.

The above is respectfully submitted.

R. M MORRISON,
Superintendent Southern Railroad.

Monroe, November 25, 1840.

—

(A.)

Report of J. M. Berrien, Chief Engineer.

Ann Arbor, April 26, 1840.

To JOHN VAN FOSSEN, *Pres't B. I. I.:*

The suspension of our public works the present season, or at any rate such of them as are eventually to be completed and brought into operation, must be attended, it appears to me, with very serious consequences to the people, and with very heavy pecuniary loss. It is not necessary, at this time, to say any thing about the policy heretofore pursued in relation to public improvement, nor to enter into any arguments to show which of our public works are entitled to legislative preference; neither of which have any thing to do with the matter now in hand. The importance, however, of completing at least one channel of communication between Lakes Erie and Michigan is, I believe, conceded by all; indeed, it cannot but be self-evident to any person acquainted with the immense amount of travel and freight which pass round us yearly, by a circuitous and oftentimes dangerous navigation, or who knows the character of the interior of our state, the improvement of which it is susceptible, and which such a channel of communication, would so much accelerate. At present, my object is to show as clearly as may be, the unfortunate effect of a sudden suspension of the works now in progress, presuming always that they will, or that some of them, at least, will be resumed the next year, and in doing this, will confine my remarks more particularly to the Central railroad, with the affairs and condition of which I am, of course, more intimately acquainted. In making up estimates of loss and damage, I have had the assis-

Digitized by Google

tance of a statement prepared by Mr. Hurd, and that the amount, as computed by myself, falls short of that estimated by Mr. Hurd, arises from the fact he does not appear to have made any deduction for expenses, from the estimated receipts of the road, and also from a desire on my part, to keep entirely within the limits of probability, knowing as I do, that persons not conversant with the matter, will have difficulty in giving credit to any thing like even a reasonable statement of the subject. There has been expended upon the Central railroad west of Ann Arbor, in labor, materials, including iron, engineering and surveys, right of way, damages and fencing, about $230,000; very nearly one-half the probable cost of the whole work between Ann Arbor and Jackson. The interest to be paid by the state the coming year, upon the sum so expended, is $13,000. To this must be added the damage to be sustained by the work and materials upon the line of road, exclusive of iron, being left in an unfinished and exposed condition during the year, and which could not be estimated at less than from twelve to fifteen per cent upon cost. I make no allowance for the expense of preparing the line for rēletting, at some future day, but will assume the damage at twelve per cent of the work actually done and materials delivered, which gives the sum of $16,200. As the amount of contracts upon this road will probably not much exceed our appropriation, I make no special allowance for damages to be paid to contractors, although on the other works (it is probable this item will be heavy,) the measure of such damage being usually the profit which the contractor could have realized by completing his job. There will, however, be something to be paid on this score, and it will also be necessary to keep some one in charge during the season, who must be under pay. In addition to this, it must be remembered, that the longer the work lays, and more damaged condition it is in when resumed, the higher will be the prices demanded by contractors for its completion. For these matters, I could not, with any propriety, assume a less amount than $10,000, and I verily believe the sum must be much greater. Assuming, however, the $10,000, we have for money actually to be paid out for interest on money already expended, damages and additional cost for completing the road to Jacksonburg, the sum of $10,000, which must be accounted a total loss to the state. In addition to this, we must count as a loss to the state, the profits to accrue from the running of the road (40 miles,) between Ann Arbor and Jackson for one year. In arriving at this, I might enter into an estimate of the probable amount of the surplus products of the counties tributary to the road, for the ensuing year, and of the increase of transportation in other articles, which the carrying of this surplus to an eastern market would certainly occasion, and also of the

Digitized by Google

great number of passengers, which the addition of forty miles to the length of our road, would as certainly divert from other routes. In the report of Mr. Edmunds, of the senate, made during the last session of the legislature, he states the amount of produce which would be carried over the road the ensuing year, supposing it completed and in operation to St. Joseph, at three hundred thousand barrels, and further, that this is the lowest estimate put upon it. Mr. Hurd, from data collected by himself, in the western counties, estimates the surplus products of Jackson, Calhoun and parts of Kalamazoo, Eaton, Ingham, Branch and St. Joseph counties, for the ensuing year, at 267,500 barrels.

Both these gentlemen, in their estimate of the profits to accrue from the completion of the road, take into consideration, and very justly too, the immense increase of business which we may so fairly calculate upon. I had, myself, prepared a similar estimate, in which, being desirous, (as I before stated,) of keeping entirely within limits, the surplus was put down at 175,000 barrels. Even this may appear large, but any one who will take the trouble to investigate the matter, must be satisfied that it is far below what we might reasonably assume, and particularly when it is mentioned that this quantity would give but an average of fifteen loaded cars per day. Very nearly the whole of this transportation would be gained for the road, by completing it even as far as Jacksonburg, and a very great portion of the whole value saved to the producer. My estimate was further intended to embrace the return transportation which the carrying of our products to market would occasion, and the travel to be diverted to the upper lakes and other routes, put down by Mr. Edmunds at fifty passengers per day; yet, as such estimates are necessarily very uncertain, and even when vastly within bounds, are rarely credited by persons who will not be at the pains to inform themselves upon the subject. I have thought it best to confine myself to the business heretofore done, to allow for no increase, and considering the road in operation only as far as Jacksonburg, to ascertain the probable loss to the state from the suspension of the work which unfortunately is so likely to take place. Without, therefore, giving any calculations as to the total amount of tonnage, or the number of passengers which might be anticipated on the completion of the whole, or any additional portion of the road, and which, I am well assured, if done fairly, must vastly exceed what, perhaps, many of our best informed citizens could readily give credit to, and therefore might do more harm than good. I will simply take the receipts of the road already in operation as a guide for my estimates of the profits, when the portion between Ann Arbor and Jacksonburg shall be brought into use, which sum for one year must be add-

Digitized by Google

ed to the $40,000 already ascertained, to make up the amount of inevitable loss to the state by the suspension of this work the present season. The average receipts upon the road between Detroit and Ypsilanti, for two years, has been about $80,000. The length of this route is thirty miles, without allowing for any increase, and without taking into consideration that the last season has been one of unexampled severity and depression in business of all kinds, leaving out the use of the road between Ypsilanti and Ann Arbor, for a little over one month previous to the report of the last year, which road being brought into operation after the business season was over, could not have much more than paid its expenses; but, allowing the receipts on the route from Ann Arbor to Jackson, forty miles, to be at the same rate, we have an income from this portion of $106,666. In making up a statement of the expense of using and keeping in repair of this part of the road, it is necessary to premise, that the expense of using seventy-eight miles of road, would be far less than double the expense of that now in operation, about one-half the distance. It may fairly be assumed at an addition of three-fourths the amount, and taking the expense of running the eastern half, or from Ann Arbor to Detroit, at $40,000, (much higher, I believe, than the commissioners themselves would assume,) we have for the additional expense of running to Jacksonburg, the sum of $30,000, which, deducted from the estimated receipts, leaves the sum of $76,666 to be added to the profits of the road. The sum assumed as the average receipts of the road for two years, somewhat exceeds that shown by the reports of the board of internal improvement, and, in explanation, I will state that these reports do not embrace the full period of two years, and that of the actual receipts, and over and above the amount reported, there is every reason to believe that the sum of $10,000, or thereabouts, has been abstracted by one of the collectors recently employed. This sum, if added, would swell the actual amount of receipts beyond what is above stated. With regard to the amount assumed for the expense of running the road from Detroit to Ann Arbor, I will state, that, for the last year, the expense of running to Ypsilanti, and including about six weeks' use of eight and one-third miles from that place to Ann Arbor, is reported by the late acting commissioner, at $44,451 18; this includes an item of $921 47, for building a temporary bridge over the River Rouge, and also $9,560 97 for completing the stock of cars and machinery, rebuilding some, and repairs of others, in which last item is included the salary of $1,000 for a superintendent of the car shop.

The charge on this account will be reduced the present year to little more than one-third the above amount. A further reduction has been made by the present board, in the number

Digitized by Google

and salaries of the persons employed in the transportation department, amounting to a saving of more than $4,000 per annum. During the last year, two trains of cars passed over the road daily, which during the next winter, at any rate, will be unnecessary, and a further reduction upon the expenses of last year may be made, by throwing off one train after the close of navigation for the season. Taking all these reductions into view, we have for running of the road the present year, and supposing the length to correspond with that passed over during the last, a little more than $30,000, which I consider an ample allowance. The additional transportation for the present year, between Ann Arbor and Ypsilanti, cannot amount to $5,000; but, in order that my estimate of expenses may be sufficient and beyond all question, I have assumed the whole amount, as already stated, at $40,000. I would also remark, that the interruption to the use of the road during the last year, occasioned by the destruction of the Rouge bridge, the reports circulated at the east, that its operations were entirely suspended, and the passengers and freight thereby turned into other channels, the additional expense of transporting in teams over about three-quarters of a mile, for some five or six weeks, is, altogether, considered by Mr. Thompson, in his report, as having occasioned a loss to the state of between five and ten thousand dollars, in which opinion he is undoubtedly correct. It is said by some persons, and perhaps believed by them, that the greater the length of one road brought into operation, the less must be the comparative profits; and that consequently, the route between Ann Arbor and Jackson cannot be expected to pay a profit to the state, or even interest upon the cost. In my view of the matter, a more erroneous idea could not be entertained. Any man of reflection or common observation, must be aware, that the opening of any channel of communication, which reduces the expenses and facilitates the transportation of the surplus of the country to market, must certainly tend to accelerate its settlement, to bring it under cultivation, and to increase the amount of its surplus products, which, on finding their way to market, will as certainly increase its transportation and business of all other kinds, for in our state, the farming interest being far beyond all others, we may fairly consider men otherwise engaged, as the agents or representatives of that interest, and dependent almost as much as the farmer himself, upon the production of the soil. I will not again refer to the increase of travel to be occasioned by the extension of the road; the probable result in this respect, has already been sufficiently shown. I might, however, ask, how the profits of the Erie canal, had it been completed but forty miles from Albany, would have compared with its present immense revenue, and what would probably have been the present condition of coun-

Digitized by Google

try through which it passes, or even of our own state. Indeed, all experience, as well as theory, shows the objection referred to, to be scarcely worthy of serious consideration, and I can hardly imagine that it is seriously entertained with regard to the extension of a route, the utility of which has already been sufficiently demonstrated. With the above considerations and remarks in view, my estimate of the revenue of the Central road, supposing it in operation to Jacksonburg, cannot, I think, be considered as otherwise than fair and reasonable, and within the truth.

To return, therefore, we have for the additional profit to accrue from one year's use of the road to Jacksonburg, and the additional cost of completing it to that place, arising from one year's delay, the sum of $106,666, which sum must be accounted as lost to the state, should the work be suspended until appropriations can be made by the next legislature. Even this amount may appear too much, but it is less than one-half what has been estimated by well informed persons. It must also be borne in mind, that I have allowed for no increase of business beyond the average of the last two years, but have assumed that average as the basis for my computation. I have already stated, that nearly one-half the whole expense of the road from Ann Arbor to Jacksonburg has been incurred. The interest of the money necessary to complete it would, therefore, but little more than equal the interest lost by suffering the work to lay over; while the actual loss and damage to the work is shown to be nearly three times, or taking into consideration the use of the road for one year, more than eight times this amount of interest.

With regard to other works in progress, my opportunities have not been such as to enable me to calculate with the same certainty. Our present condition and prospects render it certain, however, that the state must be for many years to come, wholly unable to carry out the very extensive system upon which we have commenced, and the policy of doing so under any circumstances, is something more than questionable, but it is not so questionable that a portion of these works, upon which heavy expenditures have already been made, may be completed and brought into operation with very great advantage to the particular sections through which they pass, and to the state. For instance, with regard to the Southern railroad, it is said that an additional appropriation of $150,000 will complete and put it in operation from Monroe to Hillsdale, a distance of sixty-seven miles. General Humphrey, late commissioner upon this work, states in his last report, that eighteen miles of the road west from Monroe is entirely completed, and that according to the estimate of the engineer, a further expenditure of only $12,600 was required to finish it to Adrian.

Digitized by Google

It is also observed by general Humphrey, that he considers the simultaneous completion, or as nearly so as possible, of the first and second divisions of the road, the first extending from Monroe to Adrian, the second from Adrian to Hillsdale, a matter calculated to promote not only the interest of the road, but of the state. His views in this respect correspond with those of every other person I have heard speak upon the subject, and go to show that the first division, (thirty-five miles,) now so nearly completed, and which the expenditure of a few thousand dollars would put in readiness for the trains, can at most, only be expected to divide the business now done on the Toledo railroad, so long as it shall terminate at Adrian, and that to render this portion, upon which nearly the whole expense has been incurred, available or profitable, requires the completion of an additional portion of the route. The engineer, Mr. Dutton, estimates the expense of completing the second division at $112,260, making the whole estimated cost of finishing the road to Hillsdale, as far as it is under contract, $124,860. All these estimates are, I believe, independent of the iron, machinery and cars, for the first of which, however, it will be remembered, the state has already paid, or become indebted.

As to the revenue to be derived from the use of this road, I have no means of estimating it, nor have I ever seen any calculation upon the subject. There can be no doubt, however, that it must amount to more than the interest of the sum estimated as necessary to finish the work up to Hillsdale. With the policy heretofore pursued, and with sectional interest, I have nothing whatever to do, nor is it worth while for any one, at this time, to consider our public works or the state in any other position than as we now find them. With regard to this road, the question now is simply, whether it is the policy of the state to refuse all further aid, and to abandon a work upon which something like five hundred thousand dollars has already been expended, and upon which interest is now being paid, or whether it is best to appropriate the amount asked for, (one hundred and fifty thousand dollars,) and thereby enable the road to pay its own interest, or at any rate, a portion of it. That the profits of the road, when in operation to Hillsdale, will amount to more than the interest of the sum now required, I presume, can hardly be questioned; and if so, then does the true interest of the state require that the appropriation be made, and that there should be no unnecessary delay in prosecuting the work to completion. Were the question now raised as to the further continuation of this road, other considerations would, of course, become involved, but our inquiry at present is only as to the best means of rendering it available. The money already expended, and the arguments which might be made against such continuation, have nothing to do with the

Digitized by Google

matter now in hand. If I am correctly informed, all the work upon the Southern road as far as Hillsdale, is now under contract, and the appropriation being expended, nothing remains which can be applied. Supposing, then, the work to be suspended the present season, and resumed again at some future time, I cannot doubt the damage and loss to accrue from injury sustained by work and materials, left in an unfinished and unprotected condition—damages to be paid contractors; the additional prices demanded when the work shall be rēlet, and the interest which might have been saved—must amount, I should think, to a sum very far beyond what I have already estimated for similar damages upon the Central road. On some of the northern works, large balances of appropriations still remain unexpended. Our present financial condition, however, forbids all idea of carrying out these works as originally contemplated, and true policy would dictate, that money remaining to be applied, should be expended in such a manner as would most conduce to the benefit of this section, and thereby promote the interest of the state. To expend the present appropriations, and all that can hereafter be expected in the manner heretofore contemplated, could not bring into operation a sufficient portion of these works to make them of any particular use to the state, or to persons residing upon the lines. Changes have accordingly been suggested, and I believe that in the appropriation bill, the recent failure of which is so much to be regretted, provision was made for converting the Northern railroad into a turnpike or wagon way; for the purchase and completion of the Pontiac railroad, and the construction of one or two other works of minor importance, for all of which the means yet to be applied, were deemed amply sufficient.

With respect to the contemplated change in the Northern railroad, it will be remembered that the clearing and grubbing of one hundred and ten out of one hundred and thirty miles, let to contract for the purpose, is already completed, and the estimates, exclusive of retained per centage, for all the work done up to the 1st of November last, only amount, according to the statement of the engineer, to the sum of $38,181 17. But a very small portion of this can have been expended otherwise than in clearing and grubbing, and in converting the road into a wagon way, although some slight changes of the line may be advisable, yet but a very small portion of the amount heretofore expended, will be sacrificed. It is probable that a little more than one half the unexpended appropriation upon this road will be sufficient for the construction of the wagon way; whilst the whole of it, applied to the railroad, can bring into operation some eight or ten miles only, which would be quite as useless to the people of the north as to the state at large.

Digitized by Google

It is, moreover, altogether probable, that a good turnpike across the northern section of the state, running, as the route does, through a very fine (though for the greater part) as yet, very thinly settled country, would tend almost, if not quite as much, for many years to come, to settle and improve the lands on its borders as would the railroad were it now completed throughout its entire length. I need not refer more particularly to the northern works than to mention that those so classed, are the Clinton and Kalamazoo canal, Northern railroad, Saut de Ste Marie canal, canal round the rapids of Grand river, the improvement of the Grand, Maple and Kalamazoo rivers, upon all of which partial appropriations have been made; nor is it necessary to speak of the other changes contemplated. The single instance selected, and a general knowledge of the fact that the appropriation for this section, if expended as heretofore designed, must become almost entirely useless, show most conclusively that the want of legislative action will be more severely felt at the north than either in the centre or the south. No authority exists, except with the legislature, to direct the moneys appropriated from the object for which they were originally designed, and without that authority, no expenditures can be made which are likely to be of any real benefit.

Taking into view the whole condition of the state in regard to her internal improvement, would have led me into a far more lengthy discussion. But my remarks have been purposely condensed, although I presume enough has been said to show the very unfortunate position in which our public works are placed for the want of appropriations, and also the very deleterious influence which a suspension must have upon particular sections, and upon the interest of the people at large. If so, my object is accomplished, and I cannot but hope that means may yet be found to avert the impending evil.

All of which is respectfully submitted by your obedient servant.

JOHN M. BERRIEN, *Chief Engineer.*

(B.)

Appointment of Theophilus Metcalf.

OFFICE OF INTERNAL IMPROVEMENT,
Detroit, May 1, 1840.

THEOPHILUS METCALF, *Esq., Adrian:*

SIR—It has been represented to us by a number of the citizens of your place, that the contractors on the Southern railroad are prosecuting their work on the line west of Adrian, and that an unnecessary number of the engineers heretofore

Digitized by Google

employed on that road, are exercising the functions of engineers at the present time, with a view of presenting claims to the legislature for remuneration for such services. In relation to the matter of appointing engineers or superintendents on that road, and our powers in the case, we refer you to the closing paragraph of the seventh section of the act now in force, and by which we must govern ourselves; stating in connection therewith, that we are advised by the auditor general, that the appropriation on that road is exhausted. In this state of the case, and feeling disposed rather to aid by our individual efforts, than embarrass the contractors in the course they are pursuing, we propose that you select such help as the business actually requires on that road, in the engineer department, and keep an accurate account of the duties performed, to be presented to the legislature for their approval, in which case we will lend any aid in our power, in procuring for you a fair remuneration.

We would, at the same time, advise the contractors on the work, to comply with such instructions, in the prosecution of their contracts, as you may think proper to give, and also to submit their work to yourself, or those you may associate with you, to be estimated, as we cannot recognize the claims of any persons for services performed, that you do not employ on the condition above stated.

Very respectfully, yours, &c.,

JOHN VAN FOSSEN,
THOS. ROWLAND,
Commissioners of Internal Improvement.

(C.)

Report of Theopolis Metcalf, Assistant Engineer.

To the honorable the Board of Internal Improvement of the state of Michigan:

Messrs:—In compliance with your instructions, contained in your communication of the 9th inst., I have the honor herewith to submit to you a statement of the condition of the public work under my charge, the amount of work to be done, its progress, and an inventory of the public property, &c., &c., since April last.

In giving you a statement of the amount of work to be performed, we shall be obliged to deduct the work estimated, from the amount of work to be performed, as stated in a previous report, supposing it to be based upon the field books, (which we have not yet in our possession,) containing an accurate amount of all the work, together with such additional expen-

Digitized by Google

ses as have since arose. That part of the road between Monroe and Adrian, a distance of thirty-five miles, is now complete and in operation, together with a cheap, temporary depot, including an office, also a well-house, which will answer the desired purpose, until further privileges for building are extended by law. There has been a considerable extra work done and estimated on the first division, in reparing superstructure and embankments, securing superstructure from quicksands, &c., &c.; for amount, see tabular statement of work estimated on this division. The work on second division, between Adrian and Hillsdale, a distance of thirty-two miles, has progressed with unexpected rapidity, considering the embarrassed situation in which the contractors are placed, with regard to pecuniary matters. Every contractor on this division is struggling towards the completion of his contract. It will now cost but little more than laying the superstructure and filling in the horse paths, to complete the work now under contract; therefore, it will be necessary for me to urge on you the importance of using every endeavor to so do, since it is necessary, before the state can realize any thing in return for moneys already expended on this route.

There has been several verbal contracts entered into, which are considered indispensably necessary in securing work already performed, such as grading, horse paths, to secure superstructure, &c., with reasonable expectation of the countenance of a wise and just legislature.

The following is an inventory of the public property now under my charge, viz:

Six levels, four of which are very much worn; six tripods, very much worn; two theodolites, one of which is very much worn; five rods; one large drawing table; one small drawing table; one small box stove, &c.; three dirt carts.

First Division.

Clark & Cole have been estimated under their contract of the 21st of March, 1838, the sum of $955, out of the $1,000 reserved by the late board for completing their contract; they have likewise been estimated under said contract, the sum of $2,254 14 for distributing the iron rails, &c., along the first thirty-one miles.

Silas Crane, 2d, has been estimated the sum of $99 00 for transportation of iron, &c., to section 32 and 33.

Crane & Whitney have been estimated, under their contract of the 10th October, 1838, the sum of $939 20 for laying superstructure on sections 32, 33, 34 and 35; they have likewise received, under a verbal contract of the late board, for filling in horse path on the above sections, the sum of $480.

Loren Throop has been estimated, under his contract for

Digitized by Google

furnishing ribbon, &c., of the 2d December, 1837, the sum of $219 50.

McKey, Clark & Co., have been estimated, under their contract of the 21st of March, 1838, and of verbal contract of the late board, for grading, ditching, &c., sections 21 and 22, the sum of $496 23.

Henry L. Stewart and Asa Winter have each been estimated $200 for grubbing done on sections 25, 26, 27, 28, 29 and 30, accasioned by the non-fulfillment of original contract by L. G. Budlong.

On sections 32, 33, 34, there has been estimated to F. A. Wilcox, for repairing superstructure occasioned by the settling of the embankments, to the amount of $79 80. On the above sections there has been estimated to Silas Crane, 2d, on like account, the sum of $87 75.

On sections 33, 34, 35, there has been estimated to Silas Crane, 2d, for ditching in the excavations, &c., and for transporting earth to settled embankments, repairing well, &c., the sum of $660 00. On the above sections there has been estimated to Henry Spencer, for repairing embankments, &c., the sum of $25 62.

On section 35 there has been estimated to John Silk, &c., for ditching, digging well, &c., the sum of $143 97. W. W. Woodford has been estimated the sum of $13 00, for brick for the above well.

For castings, repairing dirt carts, &c., the following persons have been estimated the following sums: A. Bigelow & Co., $76 62; J. Barker, $25 50; Park & Strickland, $57 11.

Adrian Depot.

James Berry has been estimated the sum of $739 22 for various services rendered in the construction of the above depot, &c.; Jappeth Cross has been estimated the sum of $18 00 for an eight day clock for do; J. J. Newell has been estimated the sum of $32 69 cents for stationery.

Second Division—Grading.

On sections 1, 2, 3, 4, 7 and 8, there has been grading, &c., done and estimated to Patrick Corrigan, assignee of James Murphy, under his contract of October 10, 1838, since April last, to the amount of $7,730 41.

On sections 5 and 6 there has been grading done and estimated to Joseph Vaughan, assignee of Wm. C. Clark, under his contract of October 10, 1838, since April last, to the amount of $1,959 00.

On sections 11 and 12, there has been grading done and estimated to John Crawley, under his contract of Oct. 10, 1838, since April, 1840, to the amount of $2,418 35.

On sections 9, 10 and 13, there has been grading done by

Digitized by Google

Clark & McAdam, under their contract of October 10, 1838, since April last, to the amount of $2,500 00, of which there has been estimated $499 97.

On sections 15 and 17 there has been grading done and estimated to Colvin & Anderson, assignees of E. Pierce, under his contract of October 10, 1838, since April, 1840, to the amount of $1,238 50.

On sections 18, 19, 20, 21, 24 and 25, there has been grading done and estimated to Brown & Harvey, under their contract of October 10, 1838, since April last, to the amount of $7,428 90. On the above sections there has been grading done and estimated to Henry and Frederick Fowler, assignees of Brown & Harvey, under their contract of October 10, 1838, since April last, to the amount of $4,657 98.

On sections 22 and 23, there has been grading done and estimated to Colvin & Anderson, under their contract of October 10, 1838, since April last, to the amount of $245 42. On the above sections there has been grading done and estimated to R. O'Meally & Co., assignees of Colvin & Anderson, under their contract of Oct. 10, 1838, since April last, to the amount of $507 05.

On sections 26, 27, 28, 29, 30 and 31, there has been grading done and estimated to J. P. Cook & Co., under their contract of October 10, 1838, since April last, to the amount of $6,999 43.

Timber for Superstructure.

On sections 1, 2, 3 and 4, there has been timber furnished for superstructure, and estimated to E. C. Winter, under his contract of October 10, 1838, to the amount of $779 92. On the above sections there has been timber furnished for superstructure and estimated to P. R. Herring, on account of some timber being destroyed by fire, and in consequence of the non-fulfillment of contract by E. C. Winter, to the amount of $872 89. On sections 1 and 2, there has been rails furnished by L. L. Folliott, and estimated to him, to the amount of $72 50, partly in consequence of the non-fulfillment of E. C. Winter's contract, and partly on account of the destruction of timber by fire, which had been estimated to him heretofore.

On sections 3, 4 and 5, there has been rails furnished and estimated to E. W. Hook, under his contract of Oct 10, 1838, since April last, to the amount of $233 10.

On sections 6, 7, 8, 9 and 10, there has been mud-sills and ties furnished for superstructure, and estimated to Timothy Ludlum, under his contract of October 10, 1838, since April, to the amount of $681 30.

On section 7, there has been rails furnished for superstruc-

Digitized by Google

ture, and estimated to Joseph Vaughan, under his contract of October 10, 1838, since April last, to the amount of $150.

On sections 14, 15, 16, 17, 18 and 19, there has been rails furnished for superstructure, and estimated to Augustus Finney, under his contract of October 10, 1838, since April last, to the amount of $591 12.

On sections 20 and 21, there has been estimated to Brown and Harvey, extra mud-sills, which was got on, prior to April last, to the amount of $302 45. There has also been estimated on sections 22, 23, 24 and 25, mud-sills, rails and ties, to the amount of $691 03, under their contract of October 10, 1838.

On sections 26, 27, 28, 29, 30, 31 and 32, there has been mud-sills and ties furnished for superstructure, and estimated to Henry and Frederick Fowler, under their contract of October 10, 1838, since April last, to the amount of $723 73.

On sections 1 to 21, there has been wedges and coupling plank furnished for superstructure, and estimated to Edward H. Winans, under a verbal contract of the late board, since April last, to the amount of $1,559 20.

E. Leonard has been estimated $36 50, for coupling plank for sections 26 and 27.

On sections 26, 27 and 28, there has been estimated to the Osseo company, who are the assignees of E. D. Ambler, under his contract of October 10, 1838, since April last, to the amount of $104 00.

Laying Superstructure.

On sections 1, 2, 3, 4, 5 and 18, there has been superstructure laid and estimated to Edward H. Winans, under his contract of October 10, 1838, since April last, to the amount of $4,919 90.

On sections 26 and 27, there has been superstructure laid and estimated to J. P. Cook & Co., under their contract of October 10, 1838, since April last, to the amount of $630.

On sections 23 and 24, there has been superstructure laid and estimated to H. & F. Fowler, assignees of Brown & Harvey, under their contract of October 10, 1838, to the amount of $519 33, since April last.

Bridging.

On sections 1, 6, 8, 10, 11, 12, 15, 16, 17, 19, 26, 28 and 32, there has been bridging constructed and estimated to Edward H. Winans, under his contract of October 10, 1838, to the amount of $6,219 65, since April last.

On section 23, there has been bridging constructed and estimated to Peter B. Kinne, under his contract of October 10, 1838, to the amount of $673 90, since April last.

On section 28, there has been pile bridging constructed and

Digitized by Google

estimated to Henry and Frederick Fowler, under their contract of August 1, 1839, to the amount of $660, since April last.

Culverts.

On sections 7 and 8, there has been culverts constructed and estimated to Charles W. Beers, under a verbal contract of the late board, to the amount of $250 35, since April last.

On section 15, there has been culverts constructed, and estimated to Colvin and Anderson, assignees of E. Pierce, under his contract of October 10, 1838, to the amount of $78, since April last.

On section 26, there has been an arch culvert estimated to J. P. Cook & Co., under their contract of October 10, 1838, to the amount of $166 80, since April last.

On section 1, there has been culverts constructed and embankments repaired by P. R. Herring, to the amount of $12, which sum has been estimated to him.

On sections 1, 2, 3, 4 and 5, Patrick Forrester has been estimated for ditching, &c., the sum of $69 21.

Barney Quillhart has been estimated for hauling spike, the sum of $11 25.

E. H. Winans has been estimated for do, $10 50.

Filling in horse path.

P. R. Herring has been estimated for filling in horse path, in part completed, on sections 1, 2, 3 and 4, the sum of $350.

Fencing.

Benjamin Hathaway has been estimated for fencing across part of his improvements on section 7, the sum of $62 50.

Jacob Hathaway has been estimated for fencing across part of his improvements on section 8, the sum of $44.

Grubbing.

Thomas McKinny has been estimated the sum of $80, for grubbing done on section 21.

Peter Fairling has been estimated the sum of $35 for clearing adjacent to line for surplus excavation.

Instruments.

Wm. Baker has been estimated for one level and tripod, complete, the sum of $135.

R. W. Baker has been estimated for one level and tripod, complete, the sum of $130.

Digitized by Google

Engineering.

Theo. Metcalf has been estimated in part, for services rendered since April last, $269 23

Thomas Frazer,	do		do	333 32
Royal W. Baker,	do		do	402 58
Wm. Baker,	do		do	262 00
Samuel Bement,	do		do	66 66
H. L. Stuart,	do		do	158 00
H. W. Shaw,	do		do	183 00
Jno. Paxton,	do		do	31 00
Ham. Grinnel,	do		do	65 00
P. R. Herring,	do		do	15 00
James Powers,	do		do	34 50
James Love,	do	for board, &c.,	do	144 00
Peter Fairling,	do		do	15 00
David Pratt,	do		do	44 14
Geo. Goodrich,	do		do	25 28
M. T. Palmer,	do		do	59 00
H. & F. Fowler,	do		do	38 73

H. J. Tyler has been estimated the sum of $21 for printing.

Digitized by Google

First Division.

Date of contracts.	Names of contractors.	Nature of work.	Names of sections.	Amount of work estimated from April to Dec., '40	Amount of work to be performed.
Mar. 21, 1838.	Clark & Cole,	Laying super. & grading,	1 to 31 inclusive,	$955 00	$45 00
	do	Distributing iron, &c.,	do	2,254 14	
	Silas Crane, 2d,	do		99 00	
Oct. 10, 1838.	Crane & Whitney,	Laying superstructure,	32, 33, 34, 35,	939 20	
	do	Filling horse path,	do	480 00	
Dec. 2, 1837.	Loren Throop,	Furnishing ribbon, &c.,		219 50	
Mar. 21, 1838.	McKey, Clark & Co.,	Grading, ditching, &c.,	21, 22,	496 23	150 00
	H. L. Stuart,	Grubbing,	25, 26,	200 00	
	A. Winter,	do	27, 28, 29, 30,	200 00	
	F. A. Wilcox,	Repairing sup. and emb.,	32, 33, 34,	79 80	
	Silas Crane, 2d,	do	do	87 95	
	do	Ditching, &c.,	33, 34, 35,	660 00	
	H. Spencer,	Repairing embank., &c.,	do	25 62	
	J. Silk & Co.,	Ditching, dig. well, &c.,	35,	143 97	
	W. W. Woodford,	Brick for well,	do	13 00	
	A. Bigelow & Co.,	Repairing dirt car, &c.,		76 62	
	J. Barber,	do		25 50	
	Park & Strickland,	do		57 11	
	James Berry,	Adrian depot,	35,	739 22	
	J. Cross,	Clock for do	do	18 00	
	J. J. Newell,	Stationery,		32 66	
				$7,802 55	

Digitized by Google

Second Division.

Date of contracts.	Names of contractors.	Nature of work.	Names of sections.	Amount of work estimated from April to Dec., '40.	Amount of work to be performed.
Oct. 10, 1840.	James Murphy,	Grading,	1, 2, 3, 4, 7, 8,	$7,730 41	
"	Wm. C. Clark,	do	5, 6,	1,959 00	
"	Clark & McAdam,	do	9, 10, 13,	2,500 00	$2,500 00
"	John Crawley,	do	11, 12,	2,418 35	
"	E. H. Winans,	do	14,		50 00
"	Ezekiel Pierce,	do	15, 17,	1,238 50	1,500 00
"	Chas. Muldorn,	do	16,		
"	Brown & Harvey,	do	18, 19, 20, 21, 24, 25,	12,086 88	8,400 00
"	J. A. Colvin & Co.,	do	22, 23,	752 47	1,100 00
"	J. P. Cook & Co.,	do	26, 27, 28, 29, 30, 31, 32,	6,999 43	9,530 00
				$35,685 04	$23,080 00

Superstructure.

Oct. 10, 1838.	E. C. Winter,	Ties,	1, 2, 3, 4, }	$797 92	
"	do	Mud sills and rails,	1, 2, }		
Verbal.	P. R. Herring,	do ties,	1, 2,	872 89	
do	L. L. Folliott,	Rails,	"	72 50	
Oct. 10, 1838.	C. W. Beers,	Mud sills and ties,	3, 4, 5, }		$109 00
"	do	Ties,	5, 6, 7, 8, }		
"	E. W. Hook,	Rails,	3, 4, 5,	233 10	
"	Albert Elliott,	do	6,		506 88

Digitized by Google

"	Joseph Vaughan,	do	7, }	150 00	332 88
"	do	Ties,	10, }		
"	Timothy Ludlum,	Mud sills and ties,	6, 7, 8, 9, 10,	681 30	
Aug. 1, 1839.	Estes & Vanakin,	Ties,	9, }		1,158 94
"	do	Rails,	8, 9, 10, }		
Oct. 10, 1838.	Knapp & Park,	Mud sills and ties,	11, 12, 13, 14, 15, 17, 18, 19,		494 86
"	E. H. Winans,	do	16,		
"	J. Raymond,	Rails,	11, 12, 13,		1,220 64
"	Augustus Finney,	do	14, 15, 16, 17, 18, 19,	591 12	
"	Brown & Harvey,	Mud sills, ties and rails,	20, 21, 22, 23, 24, 25,	*993 48	370 00
"	H. & F. Fowler,	do	26, 27, 28, 29, 30, 31, 32,	723 73	400 00
Oct. 10, 1838.	J. P. Cook & Co.,	Rails,	29, 30, 31, 32,		947 52
"	E. D. Ambler,	do	26, 27, 28,	104 00	871 00
"	E. H. Winans,	Wedges and coup. pl'k,	1 to 21 inclusive,	1,559 20	400 00
"	C. Leonard,	Coupling plank,	26, 27,	36 56	500 00
				$6,815 80	$7,311 72
"	E. H. Winans,	Bridging,	1, 6, 8, 10, 11, 12, 15, 16, 17, 19, 26, 28, 32,	$6,219 65	$400 00
	P. B. Kinne,	do	23,	673 90	400 00
Aug. 1, 1839.	H. &. F. Fowler,	do on piles,	29,	660 00	670 00
Verbal.	Chas. W. Beers,	Culverts,	1, 2, 3, 4, 6, 7, 8,	250 35	
"	Colvin & Anderson,	do	15,	78 00	
	Carried forward,			$	$

*This, $302 45, is for extra timber.

Digitized by Google

Second Division—Continued.

Date of contracts.	Names of contractors.	Nature of work.	Names of sections.	Amount of work estimated from April to Dec., '40.	Amount of work to be performed.
	Brought forward,			$	$
Verbal.	J. P. Cook & Co.,	Culvert,	26,	166 80	
"	P. R. Herring,	do	1,	12 00	
				$8,060 70	$1,470 00
Oct. 10, 1838.	E. H. Winans,	Laying superstructure,	1 to 21 inclusive,	$4,919 90	$12,566 10
"	Brown & Harvey,	do	22, 23, 24, 25,	519 33	2,580 00
"	J. P. Cook & Co.,	do	26, 27, 28, 29, 30, 31, 32,	630 00	5,295 00
				$6,069 23	$20,441 10
Verbal.	P. R. Herring,	Horse path,	1, 2, 3, 4,	$350 00	$8,000 00
	Pat. Forrester,	Ditching, &c.,		69 21	
	Barney Quillhart,	Hauling spike,		11 25	
	E. H. Winans,	do		10 50	
	H. & F. Fowler,	Repairing and transporting piling machine,		34 33	
				$475 29	
	Peter Fairling,	Clearing,		35 00	
	Benj. Hathaway,	Fencing,	7,	62 50	

Digitized by Google

Jacob Hathaway,	do	8,		44 00
Thomas McKinney,	Grubbing,	21,		80 00
Wm. Baker,	Instruments,			135 00
Royal W. Baker,	do			130 00
				$486 50

Digitized by Google

Recapitulation of second division.

Nature of work.	Amount of work estimated from April to December, 1840.	Amount of work to be performed.	Total cost when completed, exclusive of iron.
Grubbing and clearing,	$35,685 04	$23,080 00	
Grading,	6,815 80	7,311 72	
Timber for superstructure,	6,069 23	20,441 10	
Laying superstructure,	8,060 70	1,470 00	
Furnishing timber cons. bridges,	350 70	8,000 00	
Filling in horse path,	$56,981 47	$60,302 82	
		56,981 47	
			$117,284 29

All of which is respectfully submitted.

THEO. METCALF. *Engineer Southern Railroad.*

November 30, 1840

Digitized by Google

(D.)

Report of A. E. Hathon, Civil Engineer.

Detroit, June 18, 1840.

To General VAN FOSSEN, *Com'r of Internal Improvement:*

SIR—In compliance with your request relative to the Clinton and Kalamazoo canal, I have the honor to present the following as the result of such facts as have been obtained, both by the instruments and the field books, now in the engineer's office at Mt. Clemens, concerning the following questions proposed by your's of the 14th May last, viz:

"What is the distance on the independent canal, between Mt. Clemens and the first crossing of the Clinton river at Frederick?

"What is the character of the soil?

"What portion of the excavation and embankment has been completed?

"What remains to be finished?

"Also, the same questions relative to the river route, and such other information as may present itself on either of the routes."

The distance between the points required on the independent canal, is 182 chains and 43 links. The soil generally good, and the line of the canal judiciously located for the present level. There are, however, three or four short sliding banks, composed of running sand, but not difficult nor expensive to encounter. Hard pan is spoken of, but I saw nothing of the kind—*it may be found* on section No. 2, near Morass' farm, under the hard clay which has already been excavated some ten or twelve feet deep. There has been 32,289 yards of earth estimated, and it will require 118,792 yards more to complete the canal, making the whole number 151,081 yards. The sliding banks may increase the last amount some, but not to that amount anticipated heretofore. The lock-pit at the crossing of the Clinton river, near Frederick, is a difficult place, and will require great care to guard against the rise of the river, as the sand extends from two to four feet below the bottom of the lock; however, it may be rendered perfectly secure with piles. The distance on the northern bank of the Clinton, between the points as above, is $244\frac{15}{100}$ chains, being $61\frac{73}{100}$ chains longer than the line of the independent canal. The soil is an alluvial deposit, from one to twelve feet in depth, mostly covered with trees, shrubs and grass, serving at the present time as a barrier against the freshets so common upon the river. A part of the distance is beach sand, slightly covered with turf. In fine, the whole distance was thoroughly examined, every three chains, and after the turf was removed a common

Digitized by Google

cane was thrust down from one to four feet deep. To construct a towing path upon this route, will require 21,542 yards of excavation, and 60,998 of embankment, making the whole amount equal to 82,540 cubic yards of earth to be removed; and as the line of the embankment is so extensive, nearly the whole must be paid for, either as excavation or embankment. The excavation across the two points as designated on the map returned last September, will be from six to thirteen feet nearly, in depth, and from the fact of its being an alluvial deposit, must be very expensive, as in all probability the work will be delayed by the water rushing up from the bottom, if not from the sides, and will require nearly as much labor to pump as to excavate. Should this last be the case, it would not be safe, either for the state or contractors to undertake the job. The soundings were taken near the channel, and within twelve feet from the shore. The channel depth ranging from five to ten and twelve feet generally; sixty chains of the distance is now only five feet water in the channel; twelve feet from the bank, the water varies from two to ten, generally four feet deep—consequently, dredging will be requisite a part of the distance, even with the present stage of water; but should the river only fall to the depth of last August, as given by one of the assistant engineers, Mr. Wesolowski, it must be dredged nearly one half the distance, a difficult and hitherto not a very successful undertaking. To obviate this difficulty, therefore, it will be essentially necessary to construct a dam and lock at Mt. Clemens, across the Clinton river, three chains nearly in width, and which will cost from twenty to twenty-five hundred dollars. From the above, let the facts be taken, that the result may more readily be seen, viz:

Of excavation,	21,542	cubic yards.
embankment,	60,998	do
dredging, former estimate,	6,220	do
filling independent canal,	32,289	do
Making	121,049	cubic yards

of earth to be removed, being 2,257 yards more than would be required to construct the independent canal.

This statement is based upon the present surface of the margin of the river, as above described, filled with timber and every other material that floats upon the swollen flood; and should any excavation be made below the present surface, it would only increase the above number of yards, viz: 121,049, still showing a larger balance in favor of the independent canal. So also, with respect to the price per yard, as the earth must be taken beyond the present line of the canal, or from the bank on the opposite side of the river; and it must be admitted by all, that the earth cannot be obtained and carried one hundred

Digitized by Google

feet, and deposited upon the tow path, as cheap as it can be excavated from the canal and thrown directly upon the tow path, as it is in the present case, most of the way. So far, then, as the removing the earth is concerned, the balance will be greatly in favor of the canal, and for the safety of the work. Let the tow path on the margin of the river be compared with that of the canal; and in order to construct this, all the trees, roots and stumps, that have protected the same bank for ages past, must be removed, and some 60,000 yards of foreign clay or sand heaped upon the present margin to form the path required. The turf, also, will soon decay, and what will there then be to hinder the alluvion from again putting itself in motion the first high water? Already so much has gone, as to cause the trees to stand on an angle from ten to forty-five degrees, and even many of these are now protected by the roots and old flood-wood, long since buried by the heavy floods. This has been the result of almost every embankment that has been constructed upon the margin of rivers in the states, without first excavating to solid earth. The construction of the tow path is different, as the loose earth is removed before the commencement, and, with one solitary exception, it is beyond the action of the river, except in the greatest freshets. In the above estimates, the filling in of the earth already excavated from the canal, has been considered, as the farms on the line expect it, or an allowance for damages, provided the canal is not completed within the time specified in their releases. Also, Mr. Hurd's estimate for dredging the river, which, with a dam at Mount Clemens, is all the dredging that will be required for the present.

In conclusion, I will just add, to construct the independent canal, with the proper aqueducts and locks, will require more money in the first instance, by some thirty thousand dollars, than to improve the river; and there will also be another water power at Mount Clemens, and as the state owns the whole power, it makes no difference whether it be leased at Frederick or at Mount Clemens. Should this power be created at the latter place, there will be no difficulty in leasing the same for more than the interest of the excess of construction of the independent canal; besides, the state will have a permanent section of internal improvement, instead of the temporary tow path upon the alluvial borders of the Clinton river; which, if constructed, will, as in many other instances in our country, I fear, prove a total failure, and the state again left to pocket the loss.

I repeat, that the bank and river have been thoroughly examined every three chains, and that the result is, as has been stated above; and, to satisfy those doubting, let the examina-

Digitized by Google

tion be made by disinterested individuals, and I shall rest perfectly satisfied that they will arrive at the same conclusion.

Yours, with great respect,

A. E. HATHON, *Civil Engineer.*

(E.)

Report of R. W. Van Fossen, Superintendent of the improvement of St. Joseph River.

To the honorable the Board of Internal Improvement of the State of Michigan:

GENTLEMEN—Agreeably to the resolution of your board, providing for the improvement of the St. Joseph river, passed in July last, together with the instructions of the acting commissioner, I came to this place on the 16th, for the purpose of procuring, if possible, a steamboat for the removal of the scows and other property belonging to the state, on Grand river, to this place. Being unable to effect this object, at a reasonable rate, I immediately proceeded to Grand Rapids, to examine into the condition of the property, and the means for its removal. Soon after my arrival there, I became satisfied, from the bad condition in which I found the property, and its unfitness for the purposes contemplated, that the removal of it would be altogether impracticable. After advising the acting commissioner of the condition in which I found the property, I received instructions from him, on the 8th of August last, to commence the building of a snag machine, after a plan submitted to him by F. A. Hull, a master builder, and, on the 10th inst. commenced the work. It was completed, together with a cabin scow, on the 22d of September, and, on the 23d, we commenced the removal of snags and logs along the bed of the river, beginning one mile above the confluence of Pipestone creek, and eight miles above the mouth of the river. The principal obstructions, from this point to the village of Berrien, consist of trees that have fallen from the banks; the roots of which have become buried in the sand, with the branches projecting upwards nearly to the surface of the water. Some of them have remained so long, and have become so thoroughly bedded, that it is with the greatest difficulty that we are able to remove them. We have nearly completed the work the distance of seven miles, to a point fifteen miles above the mouth of the river, and six and three-fourths below the village of Berrien. Here, on the 27th of October, our chain, being made of bad material, totally failed. The difficulty of procuring a new one of sufficient strength to answer our purposes, and the advanced state of the season, rendered it advisable to discontinue further progress for the present.

Digitized by Google

Our machine consists of two scows, fifty feet long by ten wide, and twenty inches deep, coupled together with a space between of eight feet; in the centre of each is an upright frame, on which is placed a shaft eighteen inches in diameter, to which the draft chain is attached; at one end of the shaft, is a wheel nine feet in diameter, around which a rope passes attached to a capstan eighteen inches in diameter, worked with a lever of eight feet; which, with the power of ten men, will buoy a weight of twenty-seven tons, a purchase sufficient for all the purposes required. The cost of the machine, together with a cabin scow, was $1,156 36; the actual amount paid out for clearing seven miles of river, is $462 52, being $66 07 per mile. This estimate for clearing the snags and rock will, I think, with propriety, apply to the river generally. The amount paid out for rigging, cabin furniture, and other utensils for the work, is $528 48; amounting, in all, up to October 31st, with the exception of some small amounts not included in that account, to $2,147 36.

I herewith send you a full and complete inventory of all the property under my charge, belonging to the state, with Messrs. Wheeler & Porter's receipt for the same, in whose hands I have placed it for the ensuing winter.

With regard to the future improvement of the river, I would suggest the propriety of removing the snags and rock as far up as Three rivers. This would overcome the dangers of navigation, which, at this time, are numerous. Considerable loss has been sustained this season, owing to these obstructions; and, in fact, the river cannot be navigated with the least degree of safety, except by experienced pilots.

With regard to the benefits which would be realized by the public generally, from an improvement of the river, the yearly increase of produce raised along its banks and the adjacent country, together with the enterprise of its inhabitants, the annexed table, as furnished by Messrs. Wheeler & Porter, showing the amount of imports and exports, since the opening of navigation in March last, to November 19th, will afford the best evidence, and supersede the necessity of further remarks on the subject.

Imports.	
Tons of merchandize,	248,400
Barrels bulk of merchandize,	4,728
Exports.	
Barrels of flour,	41,758
Bushels of wheat,	45,035
Barrels of pork,	1,000
Barrels of lard,	50
Barrels of whisky,	1,700
Carried forward,	

Digitized by Google

Brought forward,	
Barrels of high wines,	908
Tons of pig iron,	318
Tons of castings,	69
Packs of furs,	182
Number of hides,	349

Respectfully submitted,

R. W. VAN FOSSEN,
Superintendent of Imp. St. Joseph river.

Ypsilanti, December 17, 1840.

(F.)

Correspondence on the subject of locomotive engines.

Philadelphia, September 16, 1840.

GENTLEMEN—About a year since, we received an application from Mr. Humphrey, late commissioner, for two locomotive engines for the Southern road. He stated the funds were not immediately available, and requested a long credit. At that time we were unable to comply with his proposals, and did not send the machines. Understanding the state are still in want of engines, and are without an appropriation for motive power, we have concluded to make the following proposition, with a view to aid them in putting in operation their road, which, we understand, is ready to receive them.

We will put on board of a vessel here, (subject to your order,) two locomotives and tenders, in time to reach Detroit this season, and charge for them the same price we received from the state for those we have furnished—say $6,500 for each, the payment to be made at such time as the legislature makes an appropriation for that object, if made during the ensuing session. If they should not then act upon the subject, we reserve the right to take possession of the machines, if we should feel thus inclined. Should this proposition be accepted, we will furnish a good engineer to put them in operation, and take care of them during the interval they are in use and unpaid for; the engineer to be paid for his services by the state, and subject to the orders of their officers. For all damages done the engines by accidents, while in the possession of the state, and not their property, we expect compensation. We make this reservation, because it is possible both engines might be destroyed in a day, without fault of ours, and would thus be a total loss to us. In making these provisions, we wish to be understood as only requiring what we conceive will be for the benefit of the state, as well as ourselves. We propose sending engines as good, at least, as any we have ever made, with all the late improvements, which will embrace iron frames and other valuable changes. Should you agree to this plan, it will

Digitized by Google

be necessary to inform us as soon as possible, as the season is advancing, and no time should be lost.

Yours, &c.,

BALDWIN, VAIL & HUFTY.

(Copy.)

OFFICE OF INTERNAL IMPROVEMENT,
Detroit, October 8, 1840.

To Messrs. BALDWIN, VAIL & HUFTY:

GENTLEMEN—Your letter of the 16th September, proposing to furnish this state with two locomotive engines, for the Southern railroad, is at hand, and the board of commissioners, having had the subject under consideration, have concluded to accept your offer of the two engines, with this variation from the terms you propose, viz: the machines to be delivered at Detroit instead of Philadelphia, and the fair cost of the transportation to be added to the $6,500. In case you forward the engines, one of them will be placed on the Central railroad, under the care of Mr. Briscoe, and the other on the Southern road. From the condition of the latter road, we are not sure that the services of an additional engineer will be required during the winter upon it; and being unwilling to put the state to unnecessary expense, we must reserve the privilege of acting in this particular as circumstances may require. With these variations, we accept the proposals of your letter above referred to. Should an additional engineer be required, we would prefer that you would designate one.

That you may better understand our position as commissioners, we deem it proper to state, that for the purchase money for the engines, an appropriation must be made by the legislature; that to pay the expenses of running the road, we have the control of the receipts thereof; any accidents, therefore, that might occur to the engines while in service, being properly chargeable to the expense of running the road, we should at all times have the means to pay.

Respectfully, yours, &c.,

JOHN VAN FOSSEN, *Acting Com'r.*

(G.)

Report of J. M. Berrien, Chief Engineer.

JOHN VAN FOSSEN, *Esq., Acting Com'r Int. Improvement:*

SIR—I have examined the ground at the railroad depot in Detroit, in order to ascertain where and in what manner a building for the shelter of cars may best be constructed. There

Digitized by Google

appears to be but one position for such a building which could be of any use or convenience, and even this, on some accounts, would be very objectionable. It is to erect one, the outer walls of which shall be placed midway between the two tracks laid in the street, and the inner wall inclosing about ten feet of the lot known as the seminary lot; the building to be not less than 140 feet in length, the eastern end to be placed on the east side of the seminary lot, near the turn-round; this would inclose two of the tracks now laid, and a third track should be laid between them, thus having three tracks under cover. The building to be of wood; the width I did not exactly ascertain, but think it would cover a little over 40 feet. A house of this size would be sufficient to inclose all the cars that it would be necessary to place under cover at Detroit, two tracks being used for the purpose; the third one, that going on to the turn round, it would be necessary to keep open. The position occupied by the engine house and car shop at Detroit, I have ever considered as an improper one, and, their being so placed, prevents the putting up a car house on the ground originally designed for it, and the only ground in the vicinity which can conveniently be used for the purpose.

Anticipating the possibility of a removal of the shops at no very distant period, to some more suitable place, I have never thought it advisable to expend any more money upon the ground now occupied, until a more suitable and convenient arrangement of the depot could be made, and would particularly recommend this view of the matter to the consideration of the board.

With respect to the building which it is now proposed to erect, the objections which occur to me are, that if placed as I have described, (and I discover no other way which it can be placed, it will, with the exception of the ten feet upon the seminary lot, stand in the street, and, if kept closed, must entirely shut up the side walk; the tracks to be inclosed will be nearer together than has been calculated for, and accidents may occur from cars passing each other; as the trains must come in upon the track going on to the turn-round, upon the inside of which track the platform for passengers must be placed, it will be very inconvenient to get at the carriages and baggage wagons, and especially when the outer tracks are filled with cars. In addition to this, every engine that goes into or out of the shop, and every thing that goes into or out of the yard, must pass through this building. It would be necessary to take up and relay the turn-round track, and also to remove the double switch and crossings at Griswold street to a point further west. All these objections would seem to me to overbalance any benefit to be derived from such a building,

Digitized by Google

while the expense would be but an additional argument against a different arrangement at any future time.

I am, sir, your obedient servant,

JOHN M. BERRIEN, *Chief Engineer.*

Ann Arbor, May 13, 1840.

[No. 5.]

Special message concerning state salt springs.

To the Senate and House of Representatives:

It was manifestly anticipated by the last legislature, that progress should be made, during the summer months, in the improvement of the state salt springs, at Grand river, in Kent county, and at the Tittabawassee, in Midland county. Deeming it of great importance to the interests of the state, that the contemplated works should be undertaken by men of experience in operations of this sort, the state geologist, to whom the necessary arrangements were committed, lost no time in opening a correspondence with gentlemen residing at the extensive salt works at Kenhawa, in Virginia, and at Salina, in New York, with a view, if practicable, to enter into contracts with persons scientifically and practically acquainted with the business. He was not so fortunate as to procure any person willing to undertake the work, upon fair terms, from either of those places. In the mean time it became necessary that the geological and topographical survey of that part of the state which borders upon Lake Superior, should progress; the season was advancing; and the work did not admit of delay. After taking requisite precautions for the preservation of the works commenced, and the materials and utensils procured and belonging to the state, he proceeded to the country of the upper lakes.

Finding, upon his return, that no hope remained of entering into contracts with any person accustomed abroad to similar works, upon consultation with me, he resorted to what seemed the only proper expedient that remained, and advertised in the newspapers for proposals. That course has resulted in the conditional adoption of contracts which, within a few days past, have been submitted to me, of which I herewith submit copies for your consideration.

By the provisions of the "Act for the improvement of the state salt springs," passed at the last session, every such contract must receive the assent of the governor before it can take effect. I feel no difficulty in acting upon this matter; but

Digitized by Google

supposing that the reference to the executive, for his assent, was founded upon the presumption that such contract might be entered into at a time when the legislature was not in session; and not knowing but that you may now entertain different views as to what our true policy may require, I have deemed it proper to present the whole subject to the legislature, and respectfully to ask their pleasure and advice in the premises.

WILLIAM WOODBRIDGE.

Executive Office, January 9, 1841.

Documents accompanying the Governor's special message, relative to state salt spring lands.

(Copy.)

OFFICE OF STATE GEOLOGIST,
Detroit, December 26, 1840.

To his excellency WILLIAM WOODBRIDGE:

SIR—In compliance with the requisitions of an act entitled "An act for the improvement of the state salt springs," approved March 31, 1840, I have the honor herewith to transmit for your examination, contracts which have been entered into, for the improvement of the salt springs at Tittabawassee and Grand river.

I also send you a copy of the advertisements for proposals, in order that you may have the whole subject before you. The contracts were closed with those whose bids were lowest. The sureties upon the bonds are all personally known to me, and are perfectly satisfactory. Some little delay has occurred in forwarding these contracts to you, for the reason that it became necessary for me to await the return of the bond of Mr. Farrand from Saginaw, which has but just arrived.

The contracts are believed to contain all the information which you wished me to transmit to you, for which reason, further explanation will be rendered unnecessary.

I have the honor to be, sir,
Your obedient servant,
(Signed,) DOUGLASS HOUGHTON,
State Geologist.

Contract of Douglass Houghton, geologist, with Lucius Lyon.

Whereas, the legislature of the state of Michigan passed an act entitled "An act for the improvement of the state salt springs," which was approved and become a law and operative on the thirty-first day of March, A. D. 1840, by which act, a sum not exceeding five thousand dollars, was appropriated for

Digitized by Google

the continuance of the improvements now in progress at the said springs on Grand river, Kent county, in said state; *and whereas*, the state geologist was, by said law, directed to contract for such portion of the work contemplated as might be deemed necessary; but before the said contract, so made, should be operative, the same should receive the assent of the governor of said state of Michigan; *and whereas*, it was also provided by said law, that all sums of money drawn from the state treasury in pursuance thereof, should only be paid upon the warrant of the auditor general, which should only be issued upon the certified estimate of the state geologist; and upon all contracts for work in progress, the said law required a sum of not less than fifteen per cent upon the work done, to remain unpaid until the final completion of the contract; *and whereas*, under and by virtue of the authority then vested in him, the state geologist did, on the fourteenth day of November, A. D. 1840, cause public notice to be given in the state paper, that he would receive at his office in the city of Detroit, proposals for continuing the improvements in progress at the salt springs at Grand river, Kent county, in said state, by fixing the gum firmly and securely upon the rock, or an iron pipe within said gum, seven inches in diameter, upon the rock, and boring three hundred feet into said rock; one hundred feet to be four and a half inches in diameter, and the remaining two hundred feet to be four inches in diameter; that all proposals should be subject to the provisions of said act or law passed on the 31st day of March, eighteen hundred and forty; *and whereas*, Lucius Lyon, of Kent county, aforesaid, proposed to perform said work contemplated, at a less price than any other person;

Now, therefore, in consideration of the premises, the said Douglass Houghton, state geologist, for and in behalf of the state of Michigan, of the first part, covenants and agrees to and with the said Lucius Lyon, of Grand river, Kent county, aforesaid, of the second part, as follows, viz: *First*, the said Lucius Lyon covenants and agrees to and with the said Douglass Houghton, state geologist, and his successor in office, that he will firmly and securely fix upon the rock at the state salt springs in said Kent county, the gum already sunk, or a cast iron pipe with a bore not less than seven inches in diameter, within said gum; that he, the said Lyon, will sink a well four and a half inches in diameter, to a sufficient depth to make one hundred feet from the upper surface of the dock now erected at said works, and from the termination of said one hundred feet, the said Lyon covenants and agrees that he will continue said well four inches in diameter, two hundred feet further, making the whole depth of the well, from the surface of said dock, three hundred feet, for the consideration or sums as follows, viz: For the first fifty feet from the surface of the

Digitized by Google

dock, including the fixing down, in a permanent and secure manner, upon the rock, the gum, or a cast iron pipe within said gum, the well to be four and a half inches in diameter, nineteen dollars per foot, or nine hundred and fifty dollars for the said fifty feet.

For the second fifty feet, the well to be four and a half inches in diameter, seventeen dollars per foot, or eight hundred and fifty dollars for the said fifty feet.

For the third fifty feet, the well to be four inches in diameter, sixteen dollars per feet, or eight hundred dollars for said fifty feet.

For the fourth fifty feet, the well to be four inches in diameter, sixteen dollars per foot, or eight hundred dollars for said fifty feet.

For the fifth fifty feet, the well to be four inches in diameter, sixteen dollars per foot, or eight hundred dollars for said fifty feet.

For the sixth and last fifty feet, the well to be four inches in diameter, sixteen dollars per foot, or eight hundred dollars for said fifty feet; making the whole depth of the well three hundred feet, for the price or sum of five thousand dollars.

And the said Douglas Houghton, state geologist, as aforesaid, covenants and agrees, for and in behalf of the state of Michigan, to and with the said Lucius Lyon, that the said state shall well and truly pay unto the said Lyon, the said sums hereinbefore mentioned, for the work and labor herein mentioned, as follows, viz: the said state shall pay the said sums as hereinbefore mentioned, as fast as the said Lyon shall complete the said work, except the said Lyon shall not be entitled to demand the said sums or prices, except at the expiration or termination of each fifty feet; when the price of said fifty feet shall be paid except as hereinafter mentioned. And it is expressly understood and agreed, by and between the said Lyon and the said state, that fifteen per cent of the said price agreed to be paid, shall be retained by the said state until the full and entire completion of the said work hereinbefore mentioned, and agreed to be done by said Lyon, agreeably to the provisions of said law herein referred to.

And it is further covenanted and agreed by and between the said parties hereto, That the said state, by their agents, shall have the right and privilege of annulling or determining this contract or agreement at any time after the said well shall have been sunk to the depth of one hundred and fifty feet; and in case of this contract being annulled or determined by the said state before the said well shall be sunk three hundred feet deep, the said state shall well and truly pay to said Lyon the entire of said price or sum, without any reservation for

Digitized by Google

such portion of the said work as shall be completed, but for none other.

And it is further covenanted and agreed by and between the said parties, That the said Lyon shall have the right to occupy the buildings now erected at said springs, and the use of the steam engine, and all tools in and about said premises belonging to the state, with all the wood and coal prepared for and designed for use in making said well; and the said state further grants to said Lyon the right and privilege of cutting from lands adjoining said spring belonging to said state, all wood necessary to be used in propelling said engine, or otherwise about said work.

And it is further covenanted and agreed by and between the said parties, That the said Lyon shall, upon taking possession of said premises, execute and deliver unto the said state geologist, as agent of the state, a receipt of the said steam engine and all property now on said premises belonging to said state, (except wood and coal now on hand;) and at the completion of said works or determination of this agreement, he shall render a true and faithful account for the same to the said state; but it is understood and agreed by and between the said parties, that the said Lyon shall not be liable to pay for any of said property used in conducting and carrying on said work, except as hereinafter mentioned.

And it is further covenanted and agreed, That at the expiration of this agreement or completion of said work, the said Lyon shall and will yield and deliver up possession of said premises, buildings and steam engine, in good repair and condition; and shall well and truly deliver to the said state, all fixtures of every description erected by him, with all augurs, drills, screws, poles, and all implements used in boring the said well; and shall return all household furniture and blacksmith tools, received and receipted, in as good repair as when received, (the ordinary and natural wear and tear excepted.)

And the said parties further covenant and agree, That the said state geologist, for the time being, shall, from time to time, make out and certify to the auditor general of said state, an estimate of said work at the completion of each fifty feet, the said estimate to be made upon the application of said Lyon to the said state geologist for such purposes.

And the said Lyon further covenants and agrees to and with the said Douglass Houghton, as state geologist, agent for and in behalf of the said state, that he will forthwith commence the said work, and prosecute the same without intermission or unnecessary delay, day and night, until the same shall be fully completed, done and performed. And the said Lyon further covenants and agrees to and with the said Douglass Houghton, as state geologist, that he will well, truly and faithfully per-

Digitized by Google

form the several contracts, agreements and understandings herein before mentioned and set forth, on his part, and for the true and faithful performance of the same, he binds himself, his heirs, executors and administrators, firmly by these presents, to the said Douglass Houghton, state geologist, and his successors in office; and also in manner and form as mentioned and set forth in the bond hereunto annexed.

This contract shall take effect from and after the same shall receive the assent of the governor of the state of Michigan.

In witness whereof, the said parties to these present, have hereunto set their hands and seals, this fifteenth day of December, eighteen hundred and forty, the said state executing the same by Douglass Houghton, state geologist, their authorized agent, and the said Lucius Lyon executing the same in his own proper person.

DOUGLASS HOUGHTON, [L. S.]
State Geologist,
LUCIUS LYON. [L. S.]

Signed, sealed and delivered in presence of
STEPHEN SNOW,
HENRY N. WALKER.

Proposals for work at the state salt springs, on Tittabawassee river, Midland county.

Sealed proposals will be received by the undersigned, at his office in Detroit, until the 12th day of December next, for the following work and materials, viz: for the furnishing and sinking of good cast iron tubes, not less than seven inches in diameter, from the *bottom* of the shaft upon the state salt lands above referred to, to the rock. Said proposals to state the estimate per running foot. Also for three hundred feet of rock boring; one hundred feet to be four and a half inches in diameter, and two hundred feet to be four inches in diameter. Said proposals to specify the rate of increase per fifty feet for the rock boring.

The contractor to be furnished, until the completion of the contract, with the use of a dwelling house, blacksmith shop and tools, a supply of good wood (upon the ground) for the use of the steam engine, as also a steam engine in good order. The steam engine, &c., to be left in good repair upon the completion of the contract.

Proposals to state the time at which the work will be commenced, and it is to be understood that the work when commenced is to be continued diligently *day and night* until completed.

Payment will be made by the state treasurer in accordance with the provisions of an act approved March 31, 1840, which

Digitized by Google

act directs that "a sum amounting to not less than fifteen per cent upon the work *completed* shall remain unpaid until the final completion of the contract," and also, "that before such contract shall take effect, it shall receive the assent of the governor." Satisfactory sureties will be required for the faithful performance of the contract. The undersigned reserves to himself the power to annul and determine the contract at any time after the rock boring may have exceeded one hundred and fifty feet.

DOUGLASS HOUGHTON.
State Geologist.

Detroit, November 17, 1840.

Proposals for work at the state salt springs, on Grand river, Kent county.

Sealed proposals will be received by the undersigned, at his office in Detroit, until the 10th of December next, for the following work, viz: for three hundred feet of rock boring; one hundred feet to be four and a half inches in diameter, and two hundred feet to be four inches in diameter. Said proposals to include the entire costs of securing the gum already sunk upon the state lands, firmly upon the rock; or of tubing with good cast iron pipe, not less than seven inches in diameter, within said gum, at the option of the contractor. The proposals also to specify the rate of increase per fifty feet for the rock boring.

The contractor to be furnished, until the completion of the contract with the use of a dwelling house, blacksmith shop and tools, a supply of good wood, (upon the ground) for the use of the steam engine, as also the steam engine, the latter (which is now "set up,") to be put in good repair by, and at the expense of the contractor, and to be left in good repair upon the completion of the contract.

Proposals to state the time at which the work will be commenced, and it is to be understood that the work, when commenced, is to be continued diligently, *day* and *night*, until completed.

Payment will be made by the state treasurer, in accordance with the provisions of an act approved March 31, 1840, which act directs that "a sum amounting to not less than fifteen per cent upon the work *completed*, shall remain unpaid until the final completion of the contract;" and also, "that before such contract shall take effect, it shall receive the assent of the governor." Satisfactory sureties will be required for the faithful performance of the contract. The undersigned reserves to himself the power to annul and determine the contract, at any

Digitized by Google

time after the rock boring may have exceeded one hundred and fifty feet.

DOUGLASS HOUGHTON,
State Geologist.

Detroit, November 17, 1840.

[No. 6.]

Annual report of the attorney general.

OFFICE OF ATTORNEY GENERAL,
Detroit, January 11, 1841.

To the legislature of the state of Michigan:

The undersigned would respectfully report, that the principal business done in the office of the attorney general during the past year, has been the continuance of business heretofore commenced, the details of which have been submitted to the legislature in previous reports.

A statement of the suits instituted the past year, is herewith communicated, together with abstracts of such of the reports of prosecuting attorneys as have, in obedience to a positive statutory requirement, been transmitted to this office. The full reports of the attorneys for the counties of Wayne and Monroe, are also herewith presented, as embracing several suggestions for the action of the legislature.

My annual communication has been delayed to a late period, with the hope that returns would be received from the remaining prosecuting attorneys. No reports, however, having reached me from those officers for the counties of Washtenaw, Lenawee, Hillsdale, Jackson, Oakland, Genesee, St. Clair, Kent, Calhoun, Berrien, Ingham and Livingston, no information can be given respecting the nature or amount of criminal proceedings had in those counties during the year.

P. MOREY, *Attorney General.*

Statement of the official business commenced and transacted at the office of the Attorney General, for the year 1840.

Wayne Circuit.

Robert Stuart, treasurer, *vs.* The president, directors and company of the Bank of Manhattan.

Attachment. This suit was instituted to recover the bonus of ten thousand dollars, due from the Bank of Manhattan, under its charter.

Digitized by Google

Shiawassee Circuit.

The Board of Internal Improvement *vs.* A. Beach & Co.
An appeal from the Board of Internal Improvement.

Wayne Circuit.

Eurotas P. Hastings, for the use, &c., *vs.* John Wells and Charles Wells.
Suit upon a note assigned to the auditor general by the State bank.

Oakland Circuit.

Eurotas P. Hastings *vs.* The president, directors and company of the Bank of Pontiac.
The same.

Oakland Circuit.

Eurotas P. Hastings *vs.* The Detroit and Pontiac railroad company.
The same.

Justice's Court.

Eurotas P. Hastings *vs.* Thomas Palmer.
The same.

Oakland Circuit.

Eurotas P. Hastings *vs.* Robert Wattles.
The same.

Washtenaw Circuit.

Eurotas P. Hastings *vs.* D. C. McKinstry.
The same.

Lapeer Circuit.

Eurotas P. Hastings *vs.* Silas D. McKeen.
The same.

Macomb Circuit.

Eurotas P. Hastings *vs.* Linus S. Gilbert and Gideon Gates.
The same.

Macomb Circuit.

Eurotas P. Hastings *vs.* Aaron B. Rawles.
The same.

Wayne Circuit.

The president, directors and company of the Michigan state bank *vs.* Benjamin Porter.
Suit brought to recover the amount of a cash account due the State bank and assigned to the auditor general.

Wayne Circuit.

The president, directors and company of the Michigan state bank *vs.* Benjamin Porter and Amasa B. Gibson.
The same.

Digitized by Google

Macomb Circuit.

The board of internal improvement, appellants *vs.* Robert Wattles, for the use, &c., of Edward Peck, appellees.

A reference to the circuit court of Macomb county, by the board of internal improvement, under the seventeenth section of the law for the regulation of internal improvement of last session.

Lapeer Circuit.

The people *vs.* Henry Daum.

Indictment for murder.

Abstract of the reports of the Prosecuting Attorneys for the counties of Wayne, Monroe, Kalamazoo, Branch, St. Joseph, Shiawassee, Macomb, Van Buren and Cass, made to the Attorney General, for the year 1840.

County of Cass.

For rape,	1
obstructing officer in the discharge of duty,	2
illegal voting,	1
perjury,	1
obtaining property under false pretences,	1
Total,	6

County of Wayne.

For assault and battery,	19
larceny,	22
forgery,	1
assault,	1
house breaking,	2
counterfeiting,	6
illegal voting,	1
extortion,	1
receiving stolen goods,	1
perjury,	2
Total,	56

County of Monroe.

For assault and battery,	8
conspiracy,	4
larceny,	9
selling spirituous liquors without license,	2
selling spirituous liquors on Sunday,	2
embezzlement,	1
counterfeiting,	4
passing fraudulent money,	1
not paying over to successor, school moneys,	1
Carried forward,	

Digitized by Google

Brought forward,	
For perjury,	3
attempt to escape from jail,	1
receiving and concealing stolen property,	1
Total,	37

County of Kalamazoo.

For larceny,	5
perjury,	2
burning haystack,	1
stealing,	1
incest,	1
obtaining property under false pretences,	1
assault and battery,	2
murder,	2
Total,	15

County of Branch.

For assault and battery,	3
rape,	1
passing counterfeit money,	1
stealing,	1
obtaining money under false pretences,	1
selling whisky to Indians,	1
keeping tavern without license,	1
compounding the crime of rape,	1
Total,	10

County of St. Joseph.

For passing counterfeit money,	3
assault and battery,	3
escape from sheriff,	1
resisting officer in the discharge of duty,	2
affray,	1
conspiracy,	1
violating bank law, against two persons,	1
destroying mill dam,	1
larceny,	4
forgery,	5
keeping disorderly house,	2
robbing and larceny,	1
perjury,	2
assault,	1
coining,	1
breaking jail,	1
Carried forward,	

Digitized by Google

Brought forward,	
For champertry,	1
conspiracy,	1
Total,	32

County of Shiawassee.

For perjury,	2
larceny,	2
defacing and forging records,	1
conspiracy,	2
assault and battery,	1
official misconduct,	1
Total,	9

County of Macomb.

For larceny,	1
burglary,	2
selling spirituous liquors without license,	1
rape,	1
adultery,	1
assault and battery,	2
Total,	8

County of Van Buren.

For neglect of duty of road commissioners,	1
stealing,	2
double voting,	1
Total,	4

Recapitulation.

For assault and battery,	38
larceny,	43
forgery,	6
assault,	2
house breaking,	2
counterfeiting,	10
illegal voting,	3
extortion,	1
receiving stolen goods,	2
perjury,	12
conspiracy,	7
selling spirituous liquors without license,	3
selling spirituous liquors on Sunday,	2
embezzlement,	1
passing counterfeit money	5
Carried forward,	

Digitized by Google

Brought forward,	
For not paying over to successor, school moneys,	1
attempting to escape from jail,	3
burning haystack,	1
stealing,	4
incest,	1
obtaining money under false pretences,	3
murder,	2
rape,	3
selling whisky to Indians,	1
keeping tavern without license,	1
compounding the crime of rape,	1
escape from sheriff,	1
resisting officer in the discharge of duty,	4
affray,	1
violating bank law, against two persons,	1
destroying mill dam,	1
keeping disorderly house,	2
Sum total,	168

Report of James A. Van Dyke, Prosecuting Attorney, Wayne county.

To the Attorney General of the state of Michigan:

The prosecuting attorney of the county of Wayne, begs leave to submit the following report:

I received my commission on the thirteenth day of January last, and so have not, as yet, held the office for an entire year. In the month of February last, "the district court for the county of Wayne," was established, and in the month of March last, the "court of special sessions," so that all prosecutions conducted by me, have been either in said district court, or in one of the courts of special sessions.

There has been holden two actual terms of the district court, the September and December terms—the last June term having been abandoned soon after its commencement, on account of some difficulties which occurred at that time, relative to the venires for the grand and petit juries. But the last two terms have made a fair test of the value of the court, and of the policy of continuing it, under the present organization. At the September term, the grand jury were in session only five days, during which time they passed on fifty bills; and the petit jury were in session only about one week, and performed all the duties required of them. At the December term, the session of the grand jury was more protracted, whilst the petit jury was retained only five days, during which period upwards of

Digitized by Google

twenty cases were disposed of, and all the business performed which it was expedient to have done at that term. I would submit it as my opinion, that said court has fully answered the purposes of its establishment, and is advantageous for the defendants, for the people, and especially for the county. I would cite the following, as some of its benefits, to wit: Four terms a year are holden; by this means, defendants who are wrongfully accused, have more frequent opportunities of establishing their innocence; and if in prison, awaiting their trial, the great hardship of being immured for six months, to await a chance of a trial, is much lessened. If parties are guilty, this fact, too, is more frequently decided; and in both events, great expense is saved to the county. A prosecutor, too, can, during the session of a criminal court, devote his entire time to his official business, which he cannot do, when criminal and civil proceedings are held together. Without lengthening out this part of my report, I would say, that this court has already been the means of securing speedy trials, impartial justice, and great economy, whilst it is not attended with any peculiar evils, so far as I am at present aware of.

The causes which have been tried and disposed of, in said court, I will now enumerate, as follows, to wit:

Assaults and batteries, 17.—Of these, two were found not guilty; three were discontinued, on payment of costs, on settlement of difficulties between the parties; the remainder were, where the parties were either found guilty, or plead guilty, and have been sentenced to pay fines, ranging from two hundred and fifty dollars, down to five dollars, according to the circumstances which appeared to mark each case.

Larceny.—Under this head I have to report, that there have been twenty-two cases where indictments have been presented, and the causes disposed of; that five persons so indicted, were found not guilty; that two of the most desperate of the accused, succeeded in breaking jail and escaping; that two forfeited their recognizances, that two were permitted to go at large, on payment of costs; and the remainder were disposed of as follows, viz: John Hill and William Jackson, on five indictments, five years hard labor in state prison; David Murdock, on two indictments, 18 months do.; Patrick Kelly, three years do.; Joseph Dubay, one year do.; Anthony Gray, two cases, two years do.; and William Wilder, two months imprisonment in the county jail, and a fine of five dollars.

Forgery.—At the September term, 1840, Benjamin W. Hawkins was indicted, tried, and found guilty of the crime of forgery, and was sentenced to the state prison, at hard labor, for the term of five years.

Assault, with the intent to commit rape.—William Hill was indicted, tried, and found guilty of this offence, at the Septem-

Digitized by Google

ber term, and was sentenced to two years imprisonment, at hard labor, in state prison, and to pay a fine of one hundred dollars and costs.

House breaking with intent to steal.—Anthony Gray, at the December term, was found guilty of this offence, and sentenced to five years hard labor, in state prison; he was found guilty, at the same term, of two larcenies, above noted, all under an aggravated state of facts.

Alvah Allison, at the September term, was found guilty of breaking the door of a store, with intent to steal, and sentenced to one year, at hard labor in state prison.

Counterfeiting.—Six cases of this offence. Two persons, each indicted twice, have succeeded in escaping, one from the jail, the other from the sheriff; one has been tried and found not guilty, and the others remain yet untried.

Illegal voting.—One prosecution for this offence eventuated at the present term, in the defendants being found guilty; but for some proper reasons, sentence remains unpassed.

Extortion.—One cause was tried at the present term, but the jury could not agree, and the case remains on the docket.

Receiving goods, knowing them to have been stolen.—One cause under this head, was tried, and the party found not guilty.

Perjury.—Two prosecutions for this crime have been had; one at the June term, where the party was found not guilty, and one at the December term, against Diamond Pearl, who was found guilty, and sentenced to the state prison for five years.

There yet remain for trial, some twenty cases for various offences, besides a large number of old cases, where parties have not been arrested, not having been found, where witnesses cannot be found, and which, for good reasons, have not, and cannot, in all probability, ever be tried.

In addition to the above, I would state, that I have drawn many bills for the action of the grand juries, which have been ignored; that the other business appertaining to the office of prosecuting attorney, has, I believe, been attended to in said court, and that no serious complaints have been made against the mode of doing business in said court.

It is impossible to report the number of causes which have been tried in this county before the courts of special sessions, inasmuch as it has not been necessary, in most cases, to require any presence in behalf of the people, or to advise me of the pendency of cases. I have minutes of fifteen cases, where I have been required to attend, and both by personal observation, and by consulting with various justices of the peace, I have endeavored to ascertain how the law creating such courts has operated; and I would say, that so far, it appears to work well; to be for the furtherance of justice, and to be a cause of

Digitized by Google

great saving to our county, and of much time to parties and witnesses.

I have been required to attend to many preliminary complaints before the justices of the peace of the county. It is a severe, but proper and necessary tax on the time of the prosecuting attorney. It has also been my duty to bring many suits in behalf of the state for the collection of licenses.

It is impossible to report strictly, a particular account of all the official business performed by a prosecuting attorney in the course of a year; notwithstanding the positive language of the statute, I can scarcely think it was the intention of the legislature to require it. To report all the interviews had—all the advices given—the questions arising with the thousand officers of the county, would alone swell a report to a large volume.

I will, therefore, only say, that I have faithfully endeavored to perform, in as beneficial a manner as possible, the official duties involved upon me; and that I have endeavored, so far as it was in my power, to supply the place of my able and experienced predecessor.

Should you require more detail, I shall be pleased to give it, on the slightest intimation to that effect from you.

I would beg leave further to say, that I would have made out a report in November, but as I had not yet been in office for one year, and as the December term of our district court was then so near at hand, I deemed it advisable to wait its termination, and close this report with the year.

All of which is respectfully submitted.

JAMES A. VAN DYKE,
Prosecuting Attorney, W. C., M.

Detroit, December 31, 1840.

Report of Franklin Johnson, Prosecuting Attorney, Monroe county.

To the honorable PETER MOREY, *Attorney General for the state of Michigan:*

The undersigned, prosecuting attorney for the county of Monroe, has the honor to submit, in accordance with the provisions of law, the following report of the official business done by him, in the year preceding this day, together with the number of persons prosecuted, and the crimes and misdemeanors for which such prosecutions were had, the result thereof, and the punishment awarded against the persons convicted thereon, report.

Since my last annual report, several indictments which had accumulated in court since the years 1837 and 1838, where the persons indicted had fled before arrest, or forfeited their recognizances, have been discontinued by *nolle prosequi*. The same disposition has been made, in some instances, with the indict-

Digitized by Google

ment, where the witnesses have fled and forfeited their recognizances. But as all the individuals accused and prosecuted, with all the required particulars attending the prosecution, are fully mentioned in my last annual report, the only additional information of facts concerning them, therefore, which I now embrace in this report, are the terminations and nature of said prosecutions in their class.

Of these, of prosecutions commenced in June and December of the year 1838, there were four prosecutions for assault and battery, against two persons; four prosecutions for conspiracy, against Conlogue and others, against five persons; one prosecution for larceny; one for assault and battery, with intent to commit rape.

Of prosecutions commenced, in the June term of the circuit court, in the year 1839, two prosecutions for larceny, against two persons; one prosecution for assault with intent to commit rape, against one person; one prosecution for selling spirituous liquors without license, against two persons; one prosecution for selling spirituous liquors on Sunday, against two persons.

On all of the above prosecutions, pending in the circuit court, as above, *nolle prosequi* was entered by leave of the court.

The following will exhibit the requisite information of all other prosecutions:

People of the state of Michigan *vs.* Warren M. Rice, circuit court; embezzlement of gold watch from John Chamberlin; commenced June term, 1839, not in the state when indicted, and not arrested in New York.

People *vs.* Sherwood, circuit court; grand larceny; commenced June term, 1839, not found, not arrested.

People *vs.* Ebenezer Prentiss, John Prentiss and Peter D. Labady, circuit court; assault and battery on an officer; commenced June term, 1839, determined June term, 1840; the two Prentiss' were fined each ten dollars and costs; *nolle* as to Labady.

People *vs.* Daniel M. C. Ludlow, circuit court; one indictment for having, with intent to utter, counterfeit bank bills, and one for having, with intent to utter, counterfeit coin; both commenced June term, 1839; fled, not arrested.

People *vs.* Harlow Glass, having, with intent to utter, counterfeit coin; circuit court; commenced June term, 1839; fled, not arrested.

People *vs.* Alanson Briggs, having, with intent to utter, counterfeit bills; circuit court; commenced June term, 1839; not arrested, fled the country.

People *vs.* David A. Woodward, passing fraudulent bills, purporting to be of a bank; circuit court; commenced December term, 1839, determined June term, 1840; acquitted.

Digitized by Google

People *vs.* Sandborn Heth, petit larceny; circuit court; commenced December term, 1839, determined June term, 1840; acquitted.

People *vs.* David A. Woodward, not paying over to successor, school moneys; circuit court; commenced December term, 1839, determined June term, 1840; convicted and fined fifty dollars and costs; execution in hands of sheriff.

People *vs.* Donald McQueri and Hugh McQueri, grand larceny, stealing oxen; circuit court; commenced December term, 1839, determined December term, 1840; acquitted.

People *vs.* Patrick Conlisk, grand larceny, stealing three thousand three hundred dollars in bills, in Toledo, Ohio; theft continued into Monroe county, by carrying the money there; circuit court; commenced December term, 1839; in June term of 1840, the authority of Ohio having failed, after four months' notice, to produce a requisition, a *nolle prosequi* was entered, and Conlisk bound over before a magistrate to appear at December term, 1840, for attempting to break jail, and he was bailed in five hundred dollars, and is out on recognizance, but a requisition is now obtained from Ohio, and orders of the governor to deliver him up.

People *vs.* William Conlisk, grand larceny; commenced December term, 1839; not arrested.

People *vs.* Peter D. Labady, perjury; circuit court; commenced December term, 1839, determined December term, 1840; jury did not agree; continued.

People *vs.* Isaac Bennet, perjury; circuit court; commenced December term, 1839, determined December term, 1840; convicted and sentenced to five years' imprisonment in state penitentiary.

People *vs.* Arnold Bennet, petit larceny; circuit court; commenced December term, 1839; not arrested, fled.

People *vs.* Isaac Bennet, attempting to escape from jail; circuit court; commenced December term, 1839, determined December term, 1839; convicted and sentenced to six months' imprisonment in penitentiary.

People *vs.* William Conlisk, Michael, sen., Patrick, John and Mary, wife of Michael Conlisk, receiving and concealing stolen property; circuit court; commenced December term, 1839; none arrested but Mary Conlisk; she not tried, the rest fled.

People *vs.* Charles Neddeault, petit larceny; circuit court; commenced December term, 1839; entered into recognizance with surety, and has fled and forfeited the same; *nolle prosequi* entered.

People *vs.* John Mulholland, assault and battery; circuit court; commenced December term, 1839; determined December term, 1840; acquitted.

People *vs.* William O'Connell, petit larceny; circuit court;

Digitized by Google

commenced December term, 1839, determined same term; acquitted.

People *vs.* Augustus Amilton, assault and Battery; circuit court; commenced December term, 1839, determined December term, 1839; acquitted.

People *vs.* John Prentiss, assault and battery; circuit court; commenced December term, 1839; plead guilty, fined ten dollars and costs.

People *vs.* Nathaniel Graves, perjury, in swearing to preemption claim; circuit court; commenced December term, 1839, determined June term, 1840; *nolle prosequi.*

I would respectfully suggest the propriety of some legislation in explanation of what the law is, respecting specific taxes on merchants, tavern keepers, &c. Is there any obligation to pay, on the part of the merchant, &c.? If so, to whom must the treasurer pay the money on hand, apply it, &c.?

I have the honor to be,
With all respect,
FRANKLIN JOHNSON,
Prosecuting Attorney, Monroe county, M.

Monroe, November 15, 1840.

[No. 7.]

Report of the board of regents of the university.

Board of Regents, December 31, 1840.

To the honorable the Senate and House of Representatives of the state of Michigan:

The board of regents of the university of Michigan, respectfully present to the honorable the members of the senate and house of representatives of the state of Michigan, the following report, in obedience to the "Joint resolution relative to the university of Michigan," adopted and approved March 25, 1840:

The resolution requires the board of regents to report to your honorable bodies, at the commencement of their sessions, "if any changes, and what, are necessary to be made in the organic law of the state relative to said university, in order to secure more effectually the objects of the same."

The board of regents, having duly considered this subject, respectfully state that changes are needed, and such as were contemplated in the bill number thirty-six, on the file of the senate, and herewith presented, as containing the views of the board.

Digitized by Google

The first change in the organic law, deemed essential, is the *proper restriction of responsibility to the board of regents.* At present the responsibility is divided, and the board would be greatly facilitated in their action, were such amendments made of title twelfth, chapter first, part first of the revised statutes of this state, as would throw entire responsibility on the board, and require them to report their annual proceedings to the legislature.

The *second* change relates to the *trust and management of the funds of the university.* Under the existing law, it is impossible for the board to adopt their measures to their means, or to project or execute such plans as the interests of education, the wants of the state, and the resources of the university may demand. The machinery contemplated in title eleven, chapter two, and sections fifteen and sixteen, is too complicated and cumbrous, and the duties imposed on the superintendent of public instruction, in connection with the university, unnecessary and onerous.

Extract from the journal of proceedings of the board of regents of the university of Michigan, at a session of said board, held at the office of the secretary of said board, in Detroit, on the 5th day of January, 1841.

"Mr. Duffield, from the select committee to whom was referred the joint resolution of the legislature of this state, "relative to the university of Michigan," approved March 25, 1840, made a report, (of which the foregoing is a true copy,) which, on motion of justice Whipple, was adopted.

"On like motion, the president, pro tempore, of the board, major Jonathan Kearsley, was instructed to transmit a copy of said report, with the bill accompanying the same, to the president of the senate and the speaker of the house of representatives of this state."

Attest, A. TEN EYCK,
Secretary Board of Regents, Univ. Mich.

Detroit, January 6, 1841.

[No. 8.]

Special message concerning the five million loan.

To the Senate and House of Representatives:

GENTLEMEN—Shortly before the commencement of your present session, the state treasurer was enabled to bring to a

Digitized by Google

close, the negotiations he was instructed to commence, with a view to the more effectual security of the large debt owing to the state by the "Morris canal and banking company." The act of the last legislature, by which this duty was devolved upon the treasurer, was well timed, and wise in its provisions. The trust was of the highest importance; its successful prosecution required great diligence, devoted assiduity, and business talents of a high order. No agent could have been selected in whom all the requisite qualifications were more eminently united, than in the gentleman who has conducted, on the part of Michigan, this negotiation. And I do not hesitate in the opinion, that but for the measures pursued, the state would have suffered the total loss of at least half a million of dollars. Since your session has commenced, report has been made to me of the proceedings of the treasurer, which it gives me great satisfaction to lay before you.

The amount due to the state from the "Morris canal and banking company, and which was in so great jeopardy, is an increasing sum, now amounting, as you will perceive, to about $823,000 00, for the guaranty of which, assignments have been taken, by way of hypothecation, valued at $621,000 00, and which, upon the most reduced calculation, are estimated decidedly good for one half million of dollars. And the very fact of the consummation of this amicable arrangement, seems likely, of itself, by its favorable influence upon the business operations and the reputation of the company, so far to enlarge and strengthen its capacities, as to furnish strong assurance that hereafter *all* its engagements to the state will be met with promptitude and punctuality.

The report is accompanied by three distinct documents, marked A, B, and C, which I also lay before you. The document marked A, contains the terms of the agreement entered into, in its details. I invite your critical examination of it. The agreement itself, appearing to be clearly sanctioned by the authority and enactments of the "Act to authorize the treasurer of the state to take further security for the five million loan," no further act on your part, would seem necessary, to give it legal efficacy; but you will perceive in it a clause which will render it necessary that provision be made for the selection and appointment of the agent contemplated in the city of New York; and in providing for that appointment, I would recommend that regard be had to the possible contingency, that the agent first appointed may refuse to accept the trust, may die, or that cause may exist for vacating such appointment and making another, during the recess of the legislature. The selection already made by the treasurer, however proper and necessary, would seem *ad interim* merely, and only to continue until you should have passed upon the matter.

Digitized by Google

improvements and current business; yet is there strong ground to hope, that through the favorable arrangements effected with most of their creditors, and from their connection with other important works of internal improvements, running through Pennsylvania, &c., the company will recover from its embarrassments. The Indiana commissioner is so fully convinced of this, that he has advanced them, as above stated, $100,000, for the enlargement of the locks of their canal.

From my own personal observation on the line of their works, as well as from information from competent judges, I feel confident that their revenue will very soon be greatly increased, by virtue of their union and arrangements with other valuable and useful transportation lines, coal companies, and iron foundries, now in operation on the borders of their canal; the probability, too, is that many more of these latter establishments will be erected, as it is astertained that iron can be made with anthracite coal, at fifteen dollars per ton, which must drive foreign competition out of our markets, the price being thirty to thirty-two dollars, in the city of New York. Should these expectations be realized, Morris canal stock may so enhance in value, as to enable the company to pay off all their debts. Some indication of this was given, in the sudden rise of their stock, from nine to twenty-three per cent, as soon as it was known they had effected an arrangement with the states of Indiana and Michigan. The securities I have obtained, amount to $621,000, and will, in my opinion, be ultimately good for at least $500,000. I transmit with this communication, a copy of the agreement, (marked A,) exhibiting the details of the whole arrangement; also the bill, (marked B,) which I filed in chancery, under the belief that further negotiation would be unavailable; this bill sets forth my views, &c., in relation to the wrong done the state, by sub-agreements, militating against the terms of the original contract of 1st June, 1838, for the five million loan. The agreement I have entered into is based on their bond alone, so as not to invalidate any just claim the state may hereafter deem it right to prefer. The accompanying statement, (marked C,) shows the different items of loss to the state, in consequence of deviations from the legitimate agreements, amounting to nearly $122,000. The portion of the five million loan, guaranteed by the Bank of the United States, is, in my opinion, safe, and will, doubtless, be paid. The state bonds, for the quarter of the loan, retained by the Morris canal and banking company, have long since been disposed of, and are now in the hands of third parties, entirely beyond the company's control.

My personal expenses for the two journeys to New York, Pennsylvania, &c., embracing a period of six months and a half, during which I have been absent on this business exclu-

Digitized by Google

sively, amounted to five hundred and sixty dollars; the fee to Mr. Foote, the counsel employed in New York, was one thousand dollars; and that to Mr. Whitehead, in New Jersey, four hundred and fifty dollars; making in all, two thousand and ten dollars, which I have caused to be paid by the Morris canal and banking company. I have deposited the securities, &c., for safe keeping, with Samuel A. Foote, Esq., our counsel in New York, whom I have found an able and faithful coadjutor.

Presuming my duties in this business now to have terminated; I would respectfully suggest the propriety of the honorable the legislature, giving authority to some person to act in the premises, as circumstances may hereafter require, with power of substitution; for by the terms of the agreement, the agency of some person in New York, will become necessary.

All of which is respectfully submitted by, sir,

Your obedient servant,

ROBERT STUART,

Treasurer of the State of Michigan.

(A.)

Memorandum of an agreement entered into, the 9th day of December, in the year 1840, *between "the state of Michigan," by Robert Stuart, Treasurer thereof, and the "Morris Canal and Banking Company," a body corporate of the state of New Jersey.*

Whereas, The state of Michigan hold a bond against the said Morris canal and banking company, for the sum of one million forty-eight thousand five hundred and sixty-two dollars and fifty cents, dated the 13th day of March, 1839, on which there remains still unpaid for principal, the sum of seven hundred and thirty-seven thousand five hundred dollars, and for interest thereon up to this date, the sum of eighty-five thousand seven hundred and ninety-five dollars and eighty-three cents, making the whole sum due this day, on said bond from said company to said state, the sum of eight hundred and twenty-three thousand two hundred and ninety-five dollars and eighty-three cents, which sum the said company is unable to pay at this time, and in instalments as specified in said bond.

Now, therefore, It is mutually agreed between the said parties, as follows:

The Morris canal and banking company agree to deliver over to the state of Michigan, or the authorized agent thereof, as collateral security for the payment of the sum of eight hundred and twenty-three thousand two hundred and ninety-five

Digitized by Google

dollars and eighty-three cents, with interest thereon from this date, the following property and securities, viz:

No. 1 An assignment of a mortgage, executed by the Mount Hope mining company, a body corporate of the state of New Jersey, to the Morris canal and banking company, on their mineral tract of about eight hundred acres, and their mineral right to about eight hundred acres adjoining, situate in the county of Morris, state of New Jersey, for fifty thousand dollars.

No. 2. A bond and mortgage executed by the Morris canal and banking company on the property purchased of Nathaniel Saxton, situated on the Morris canal, in Morris and Warren counties, containing eleven hundred and fifty-two $\frac{76}{100}$ acres, for the sum of twenty thousand dollars.

No. 3. A bond and mortgage executed by the Morris canal and banking company to the state of Michigan, on their two farms in the town of Pequanock, county of Morris, state of New Jersey, consisting of three hundred and fifteen acres, with saw mill, two good dwelling houses, and other improvements, for ten thousand dollars.

No. 4. An assignment of a bond and mortgage, executed by J. Scarinus, J. T. Pierson and Stiles Williams, to the Morris canal and banking company, on lands situate in the county of Luzerne, and state of Pennsylvania, on the head waters of the Lehigh river, for twenty-one thousand dollars, the balance remaining due, on which is ten thousand dollars or more.

No. 5. A bond and mortgage executed by the Morris canal and banking company to the state of Michigan, on their banking house, and two lots of land situate on the corners of Grand, Green and Sussex streets, Jersey city, for the sum of twenty thousand dollars.

No. 6. A deed of conveyance from George Griswold to the state of Michigan, of the banking house and lot of ground No. 45, William street, in the city of New York, for one hundred thousand dollars.

No. 7. A deed of conveyance executed by the Little Schuylkill and Susquehanna railroad company, to the state of Michigan, for a tract, or tracts of land purchased by them from C. Coxe, of Philadelphia, containing about one hundred acres, situate on the head waters of the Little Schuylkill river, at and near the junction of Northampton, Luzerne and Schuylkill counties, in Pennsylvania, eight thousand dollars.

No. 8. An assignment of the residue of the debts, bills receivable, stocks, bonds, and all securities now held by the American exchange bank, and given to the said bank by the Morris canal and banking company, in liquidation of a stock transaction, 1st March, 1839, after payment of said debt to the American exchange bank, twenty thousand dollars.

Digitized by Google

No. 9. An assignment of a judgment on the Long Island railroad company's railroad, cars, with fixtures, &c., for forty thousand dollars.

No. 10. A bond of the Little Schuylkill and Susquehanna railroad company, to be hereafter secured by mortgage on their railroad, if desired. The notes of said company for amount thereof having been delivered, in the meantime, until the bond can be procured, thirty-three thousand dollars.

No. 11. Four hundred and forty shares, of fifty dollars each, in the Cumberland Valley railroad of Pennsylvania, twenty-two thousand dollars.

No. 12. An obligation of the Morris and Sussex manufacturing company, of Stanhope, New Jersey, to deliver iron in New York, 1st January, 1842, to the value of forty-five thousand dollars.

No. 13. An obligation of the Morris and Sussex manufacturing company, of Stanhope, New Jersey, to deliver iron in New York, 1st July, 1842, to the value of forty-five thousand dollars.

No. 14. An obligation of the Morris and Sussex manufacturing company, of Stanhope, New Jersey, to deliver iron in New York, 1st January, 1843, to the value of sixty thousand dollars.

No. 15. An obligation of the Morris and Sussex manufacturing company, of Stanhope, New Jersey, to deliver iron in New York, 1st January, 1843, to the value of twenty-seven thousand five hundred dollars.

No. 16. An obligation of Biddle, Chambers & Co., of Danville, Pennsylvania, to deliver iron in New York, 1st January, 1843, to the value of twenty-seven thousand five hundred dollars.

No. 17. An assignment of a debt due from Theodore Romeyn, to the said Morris canal and banking company, with the collateral security, estimated at eleven thousand dollars.

The parties to this agreement, mutually agree with each other, that the said property and securities, are, and shall be considered as received on the following terms, and subject to the following agreement:

First. Of the securities enumerated above, those numbered 3, 4, 5, 9, 11, amounting together to the sum of one hundred and twelve thousand dollars, shall be returned to the Morris canal and banking company, upon their furnishing to the state of Michigan, in exchange, an assignment of a valid and unincumbered right to their claim for advances on the script of the Apalachicola land company, of which George Griswold and Lewis Curtiss are the present trustees, together with said script and the requisite documents, to transfer the same to the said state, estimated at one hundred and ten thousand dollars.

Digitized by Google

Second. The said Morris canal and banking company agree, that unless the substitution of the claim for advances on Apalachicola script, and the script itself, for the property and securities mentioned above as 3d, 4th, 5th, 9th, 11th, shall be made and tendered to the state of Michigan within six months from this date, the said latter property and securities, shall remain permanently with the state of Michigan under this agreement, the Morris canal and banking company shall then add thereto of other securities, twenty thousand dollars.

Third. The Morris canal and banking company shall pay to the state of Michigan, the sum of one hundred thousand dollars on or before the first day of January, 1844, on account of the principal and interest upon the said sum of eight hundred and twenty-three thousand two hundred and ninety-five dollars and eighty-three cents, and annually thereafter on the first day of January in each year, a like sum on the same, until the said debt and the interest thereon shall be fully paid; such payments, and all other payments made thereon, however, always to be applied in the first place, so far as shall be necessary for that purpose, to the satisfaction of said interests which shall have accrued to the time of such payments respectively.

Fourth. Numbers 8, 12, 13, 14, 15 and 16 of the above securities and property are to be realized as they become due, and the avails to be applied on the said debt and interest; the Morris canal and banking company, however, are to have the right to negotiate the sales of the iron, subject to the approval of the authorized agent of the state of Michigan; but the contracts of sale are to be executed and carried into effect by such agent, and the proceeds received by him.

And the Morris canal and banking company shall procure the assent of the Morris and Sussex manufacturing company, as also the assent of Biddle, Chambers & Co., of Danville, Pennsylvania, to the assignment of the obligations mentioned in said numbers 12, 13, 14, 15 and 16, to the state of Michigan, and their agreement to deliver said iron to the authorized agent of said state instead of the Morris canal and banking company.

Fifth. The property and securities except numbers 8, 12, 13, 14, 15 and 16, delivered to the state of Michigan under this agreement, are to be returned to the said Morris canal and banking company, whenever they may require the same, upon the furnishing other securities to the said state not inferior in value, upon a fair and just estimate of the same, and that to facilitate this exchange of the securities which it is the intent and desire of both parties to do to the fullest extent which may be practicable for the benefit of the said Morris canal and banking company, but not to the diminution of the security of the said state of Michigan, all the said property and securities delivered under this agreement, shall be placed in the safe keep-

Digitized by Google

ing of some authorized agent of the state of Michigan residing in the city of New York, with full power and discretion to him to make the said exchange of securities in the same manner as the state itself could do, whenever application to this effect shall be made by said Morris canal and banking company, and on payment being made on liquidation of the said debt and interest, a pro rata amount of securities shall be returned. This, however, only to commence when the principal and interest shall be reduced by payments within the value of the property and securities delivered to the state of Michigan under this agreement.

Sixth. The state of Michigan shall forbear any demand, suit, or process whatsoever against the Morris canal and banking company on account of their said debt and the interest thereon, until the first day of January, 1844, already mentioned, and upon the payment of one hundred thousand dollars at that time and annually thereafter, as herein before provided, shall in like manner forbear, altogether, any legal proceedings against said company for said debt and the interest thereon.

But in case of the failure of the Morris canal and banking company to comply with the terms of this agreement, or to make such annual payments of one hundred thousand dollars, the state of Michigan shall have right to sell or otherwise realize in cash, out of said property and securities or any of them, or collect from the said Morris canal and banking company an amount sufficient to provide for the payment or payments which there shall have been a failure to make, or take such other proceedings against said company as said state may deem proper, and in case the title to any of the said property or securities or any which may be substituted in their place under this agreement, shall prove to be defective or incumbered, then the said state of Michigan shall have a right to proceed and collect of the said Morris canal and banking company, the amount of the property and security the title to which may have so proved defective or incumbered, unless the said Morris canal and banking company shall, within ninety days after notice thereof, render such title perfect and unincumbered, or give other good security in lieu thereof.

And the said Morris canal and banking company agree to advance and pay to the said state of Michigan on the execution of this agreement, the sum of two thousand and ten dollars, which is to be applied towards the payment of the last instalment of the said debt due the said state, and which payment is made to place the said treasurer in funds to meet his expenses and the fees of the counsel employed by him for said state.

In witness whereof, the Morris canal and banking company have hereunto affixed their corporate seal, and caused this instrument to be signed by their president and attested by their

Digitized by Google

cashier, and signed also by the treasurer of the state of Michigan on behalf of said state.

—

Received, New York, December 19, 1840, of Robert Stuart Esq., treasurer of the state of Michigan, the securities mentioned in the within agreement, except numbers 10, 11 and 7, which are not now in Mr. Stuarts possession, but are expected soon to be sent to me, and which securities so received or hereafter to be received, I am to take all necessary and proper measures to render available to the state of Michigan, and do all acts concerning them which the said state is bound to do by the said agreement.

SAMUEL A. FOOTE.

—

(B.)

In chancery. State of Michigan vs. *The Morris canal and banking company.*

To his excellency WILLIAM PENNINGTON, *Governor and Chancellor of the state of New Jersey.*

In chancery, humbly complaining, shows unto your excellency, the complainant, the state of Michigan, that by an act of the legislature of the state of New Jersey, passed on or about the thirty-first day of December, in the year of our Lord one thousand eight hundred and twenty-four, entitled "An act to incorporate a company to form an artificial navigation between the Passaic and Delaware rivers," the Morris canal and banking company were incorporated by that name, for the purpose and with the privileges and immunities in the said act defined and granted, and by the said act, it was enacted that the said the Morris canal and banking company should be a body corporate and politic in law, and should and might sue and be sued, implead and be impleaded in courts of justice, or in any other place whatsoever, that the said company should have power and authority at any time after the passage of said act to purchase, receive in donation, possess, enjoy and retain, demise, grant, alien and sell all such lands, tenements, hereditaments, waters, streams and water privileges, rights, goods, chattels and effects of every description whatsoever, as might be necessary for carrying into effect any of the provisions of the said act, and under the instructions and limitations therein mentioned, and that the said company should have perpetual succession and power to make and use a common seal, and the same to renew and change at pleasure, and also to adopt, establish and carry into execution such by-laws, ordinances and regulations as should, by its president and directors be judged necessary or convenient for the said corporation, in respect to

Digitized by Google

its canal and banking operations, in said act mentioned, and the same to change, alter, repeal, annul and reënact; *Provided*, The same should not be contrary to the constitution or laws of the United States, or of the state of New Jersey; and by the said act it was amongst other things enacted, that the management of the concerns of said company should be, and it was thereby vested in fifteen directors, to be selected from the stockholders; that the directors should choose by plurality of voices, a president, from among themselves; that the said directors should be elected in such manner and hold their office for such time as in the said act is mentioned.

And this complainant further shows unto your excellency, that by the said act it was further declared and enacted, that it should be lawful for said company to make, construct and execute a canal or artificial navigation to connect the waters of the Delaware river near Easton, with the tide waters of the Passaic river, and passing through the county of Morris, with all the locks, works, devices, wharves, toll houses and offices, necessary for the use of said canal, and in the said act, divers provisions and regulations are contained, in respect to the location of said canal, and of the works incident to the same, and in relation to the said company's acquiring the right of way for the same, and the lands, waters and streams useful for the said canal, and prescribing the manner in which compensations to the owners of such lands, waters and streams should be ascertained and made, as in and by said act, reference thereunto being had, may and will more fully and at large appear.

And this complainant further shows unto your excellency, that the capital stock of said company, authorized by said charter for the aforesaid canal, was one million of dollars, but the said company was by said act authorized to increase their capital stock for the purpose of banking operations, under the following conditions, restrictions and limitations, viz: that as soon as said company should have actually paid, laid out and expended the sum of two hundred thousand dollars in the purchase of lands, waters and water privileges necessary for the construction and use of said canal, and in constructing, making and building the same, it should and might be lawful for the president and directors to call from the stockholders, respectively, of said company, for the time being, in proportion to their respective shares, the sum of two hundred thousand dollars or any less sum, in the discretion of said president and directors, towards a capital for banking purposes, as aforesaid, and so often thereafter as the said company should have paid, laid out and expended other like sum of two hundred thousand dollars, in the purchase of lands as aforesaid, and in constructing, making and building the said canal as aforesaid, it should be lawful for the president and directors, as aforesaid,

Digitized by Google

to increase the capital stock of said company for banking purposes, to such further amount of two hundred thousand dollars: *Provided*, That the said increased capital of the company for banking purposes, should not exceed in the whole one million of dollars; and by the aforesaid act it is further enacted, that the said company should and might use any part of their capital stock paid in, for banking purposes, for the following additional purposes, that is to say, in buying and selling bills of exchange, or the stock of any body or bodies corporate and politic, and in loans upon bonds and mortgages, and that they might bind themselves by contract not under seal, and receive and take by deed or device and effects, and property, both real and personal, which might be left or conveyed to said company in trust, and to assume, perform and execute any trust which might be created by any deed, bequest or device as aforesaid, and they were also by said act authorized and empowered to receive, take, possess, stand seized of, and execute any and all such trust and trusts, in their corporate capacity and name, in the same manner and to the same extent as any private trustee or trustees might or could lawfully do, and no farther.

And this complainant further shows unto your excellency, that by the aforesaid act, it is further provided, that if at any time thereafter the president and directors should deem it expedient to increase the capital stock for the canal aforesaid, it should be lawful for them so to do, and to obtain subscriptions for the same, and to manage and direct the same according to the provisions, true intent and meaning of the said act; and that all the stockholders of such additional shares and their assigns, should be thenceforward incorporated into the said company, provided that a preference of subscription should always be given to actual stockholders in proportion to the shares they should respectively hold, and that such additional stock should not exceed five hundred thousand dollars.

And this complainant further shows, that it was further enacted by the said act, that the funds of the said company should never be employed in any other operations, nor for any other purposes than those provided for in said act, but as to the powers and privileges of the said corporation, and the several matters and things contained in the said act incorporating said company, the title whereof is hereinbefore mentioned; this complainant, for greater certainty, prays leave to refer to the said act, and which when produced, will more fully and at large appear. And this complainant further shows, that by a supplement to said act, passed December 31, 1824, the said company were authorized at any time after one million of dollars should be subscribed towards the capital stock of said company, and ten per cent thereon paid in as mentioned in said act,

Digitized by Google

to call in one hundred thousand dollars, to be used for banking purposes as directed in said act, but that they should not call in any more moneys for said purposes, except in conformity to the said act, as by reference to said last mentioned acts will more fully appear. And this complainant further shows unto your excellency, that by another act of the legislature of the state of New Jersey, entitled "An act to authorize the Morris canal and banking company to extend the Morris canal to the waters of the Hudson," passed January 26, 1828, it was, amongst other things, enacted that it should be lawful for the said company to continue the Morris canal to the waters of the Hudson, at or near the city of Jersey, as by the said last mentioned act, reference being thereunto had, will more fully and at large appear.

And this complainant further shows unto your excellency, that by another act of the legislature of the state of New Jersey, entitled "An act to authorize the Morris canal and banking company to borrow money, and for other purposes," passed the twenty-third day of February, in the year of our Lord, one thousand eight hundred and twenty-nine, it was, among other things, enacted, that it should and might be lawful for the Morris canal and banking company to borrow the sum of five hundred thousand dollars, and to issue therefor their post notes, bearing an interest of six per cent per annum, payable to the owners or bona fide holders thereof: *Provided*, That no such post notes should be issued of a less denomination than three hundred dollars, and by said last mentioned act, it was further enacted, that for the purpose of securing the punctual payment of the interest and the redemption and payment of the principal sums so to be borrowed, as aforesaid, the said company was authorized to execute and to deliver to any person or persons, body politic or corporate, an assignment, conveyance or transfer of the said Morris canal, with its appendages and appurtenances, and of all the lands, tenements and premises belonging to the said company; and of the chartered rights and privileges of the same, and conditioned as aforesaid, that such assignment or transfer should be entered on record in the office of the secretary of the state of New Jersey, and should be valid and effectual as a collateral security for the payment of the principal and interest of said post notes, according to the tenor and effect thereof; but as to the contents of said last mentioned act, this complainant prays leave, for greater certainty, to refer to the same, and by which, when produced, will more fully and at large appear.

And this complainant further shows unto your excellency, that by another act of the legislature of the state of New Jersey, entitled "An act to amend an act, entitled 'an act to form an artificial navigation between the Passaic and Delaware

Digitized by Google

rivers,' passed thirty-first December, one thousand eight hundred and twenty-four, and for other purposes," passed the twenty-eighth day of January, one thousand eight hundred and thirty, it was, amongst other things, enacted that the said company might, from time to time, borrow all such sums of money as to the board of directors of said company should appear necessary and proper; and for securing the due payment of the sums so borrowed, with the interest thereof, that it should and might be lawful for the said company to pledge or hypothecate by way of mortgage, trust or otherwise, howsoever, the Morris canal, with its privileges, appendages and appurtenances, and all the chartered rights and property of the said company, and that such pledge, hypothecation, trust or mortgage might be valid for the due payment of any sum or sums of money, with the interest thereof, which the same might be given to secure, as by reference to the said last mentioned act, and to which this complainant, for greater certainty, prays leave to refer, may and will more fully and at large appear.

And this complainant further shows unto your excellency, that by another act of the legislature of the state of New Jersey, entitled "An act further supplementary to an act, entitled 'an act to incorporate a company to form an artificial navigation between the Passaic and Delaware rivers,' passed thirty-first December, 1824,' passed the nineteenth day of January, eighteen hundred and thirty-five," it was enacted that the capital stock of said company be increased for the purpose of completing the said canal and paying the debts and claims then already incurred, by reason of the construction thereof, ten thousand shares, and the president and directors of said company were thereby authorized and empowered to obtain subscriptions for said shares in the manner directed by the said original act of incorporation, and to issue certificates for the same, giving preference to original stockholders still holding their stock, and all stockholders of such additional shares and their assigns, should be thenceforward incorporated into the said company, and that from and after the passing of said last mentioned act, the par value of each and every of the shares in the said company, as well those theretofore authorized as those created by said last mentioned act, should be one hundred dollars, and that all holders of existing shares, representing two hundred dollars each, might surrender the same and should be thereupon entitled to receive new certificates for double the number of shares by them surrendered: *Provided*, That no part of the money arising from the subscription authorized by said last mentioned act, be applied to the exercise of any banking or trust powers whatsoever, but solely and exclusively to the completion of said canal, and to the payment of its debts, as in said act stated, as in and by the said last men-

Digitized by Google

tioned act, and to which this complainant, when produced, prays leave, for greater certainty, to refer, may and will more fully and at large appear.

And this complainant further shows unto your excellency, that by another act of the legislature of the state of New Jersey, passed the fifth day of March, in the year of our Lord, one thousand eight hundred and thirty-six, entitled "An act to amend an act, entitled 'An act to incorporate a company to form an artificial navigation between the Passaic and Delaware rivers,'" passed December 30, 1824, it was, amongst other things, enacted, that in order to enable said company to procure the requisite lands and premises and to construct the several basins, reservoirs and feeders, authorized by the said act of incorporation and the amendments thereto, the said company was thereby authorized to increase their capital stock to an amount not exceeding six hundred thousand dollars, in shares of one hundred dollars each, for which they might obtain subscriptions and issue certificates in the manner prescribed in said act of incorporation, and that all holders of such additional shares should, from thenceforward, be incorporated into the said company: *Provided*, That no part of the said sum of six hundred thousand dollars should be used for banking purposes, but should be applied exclusively to the objects last hereinbefore mentioned; and by the said last mentioned act it was, amongst other things, further enacted, that the corporate powers of the said company should be exercised by a board of directors, to consist of twenty-three persons, who should elect a president annually from their body, and possess the other privileges and powers already conferred by law; to be elected in the manner, to hold their offices for the several periods, and subject to be removed from office, as prescribed by the last mentioned act and the original act of incorporation. As in and by the said last mentioned act, and to which, when produced, this complainant prays leave, for greater certainty, to refer, may and will, amongst divers other things therein contained, more fully and at large appear.

And this complainant further shows unto your excellency, that after the passage of the said original act of incorporation, hereinbefore mentioned and in part recited, the said the Morris canal and banking company became organized according to the provisions of said act, and became and were and have ever since continued to be, and still are a body corporate and politic, and have the privileges, powers and immunities in the said act of incorporation, and the several other acts supplemental, amendatory and in addition thereto mentioned; that they have made, erected and built the canal or artificial navigation between the Passaic and Delaware rivers, and have continued the same to the Hudson at or near Jersey city; and have also

Digitized by Google

erected and built divers wharves, offices and other appendages to the said canal; and the said company have also established a bank, and have until lately carried on large banking and other moneyed operations; that Edward R. Biddle is now president of the said company, Isaac Gibson is cashier, and Samuel L. Southard, Henry Yates, Washington Irving, Edwin Lord, John Moss, Peter M. Ryerson, James B. Murray, Isaac H. Williamson, C. B. Zabriskie, Garret D. Wall, John Travers, Simeon Draper, jr., T. C. Cadwallader, Washington Jackson, Andrew Parsons and A. Lardner, are directors thereof.

And the said complainant further shows unto your excellency, that on or about the thirtieth day of March, in the year of our Lord one thousand eight hundred and thirty-nine, the said Morris canal and banking company being indebted to this complainant in a large sum of money, made then certain writing obligatory, duly sealed with their corporate seal and signed by Edward R. Biddle, then president of said company, and attested by Isaac Gibson, then cashier, and thereby acknowledged itself indebted to this complainant in the sum of one million and forty-eight thousand five hundred and sixty-two dollars and fifty cents, payable to the treasurer of said state of Michigan, at the following times, in the city of New York, to wit: on the first day of July, eighteen hundred and thirty-nine, sixty-four thousand three hundred and seventy-five dollars; on the first day of October, eighteen hundred and thirty-nine, sixty-five thousand three hundred and twelve dollars and fifty cents; on the first day of January, eighteen hundred and forty, sixty-six thousand two hundred and fifty dollars; on the first day of April, eighteen hundred and forty, sixty-seven thousand one hundred and eighty-seven dollars and fifty cents; on the first day of July, eighteen hundred and forty, sixty thousand one hundred and twenty-five dollars; on the first day of October, eighteen hundred and forty, sixty-nine thousand and sixty-two dollars and fifty cents; on the first day of January, eighteen hundred and forty-one, seventy thousand dollars; on the first day of April, eighteen hundred and forty-one, seventy thousand nine hundred and thirty-seven dollars and fifty cents; on the first day of July, one thousand eight hundred and forty-one, seventy-one thousand eight hundred and seventy-five dollars; on the first day of October, one thousand eight hundred and forty-one, seventy-two thousand eight hundred and twelve dollars and fifty cents; on the first day of January, one thousand eight hundred and forty-two, seventy-three thousand seven hundred and fifty dollars; on the first day of April, one thousand eight hundred and forty-two, seventy-four thousand six hundred and eighty-seven dollars and fifty cents; on the first day of July, one thousand eight hundred and forty-two, seventy-five thousand six hundred and twenty-five dollars; on

Digitized by Google

the first day of October, one thousand eight hundred and forty-two, seventy-six thousand five hundred and sixty-two dollars and fifty cents; and on the first day of January, one thousand eight hundred and forty-three, sixty-two thousand dollars, as in and by said writing and obligatory now in possession of this complainant, and ready to be produced and proved, as this honorable court shall direct, and to which, when produced, this complainant, for greater certainty, begs leave to refer, may more fully and at large appear.

And this complainant further shows unto your excellency, that on or about the same thirtieth day of March, in the year of our Lord one thousand eight hundred and thirty-nine, the said Morris canal and banking company, by their certain other writing obligatory, bearing date the said thirteenth day of March, in the year of our Lord one thousand eight hundred and thirty-nine, duly made and executed under their corporate seal, and signed by the said Edward R. Biddle, their president, and attested by the said Isaac Gibson, their cashier, acknowledged itself to owe unto the complainant, the sum of three million one hundred and forty-five thousand six hundred and eighty-seven dollars and fifty cents, payable to the treasurer of the said state of Michigan, at the following times, in the city of New York, to wit: on the first day of July, one thousand eight hundred and thirty-nine, one hundred and ninety-three thousand one hundred and twenty-four dollars; on the first day of October, one thousand eight hundred and thirty-nine, one hundred and ninety-five thousand nine hundred and thirty-seven dollars and fifty cents; on the first day of January, one thousand eight hundred and forty, one hundred and ninety-eight thousand seven hundred and fifty dollars; on the first day of April, one thousand eight hundred and forty, two hundred and one thousand five hundred and sixty-two dollars and fifty cents; on the first day of July, one thousand eight hundred and forty, two hundred and four thousand three hundred and seventy-five dollars; on the first day of October, one thousand eight hundred and forty, two hundred and seven thousand one hundred and eighty dollars and fifty cents; on the first day of January, one thousand eight hundred and forty-one, two hundred and ten thousand dollars; on the first day of April, one thousand eight hundred and forty-one, two hundred and twelve thousand eight hundred twelve dollars and fifty cents; on the first day of July, one thousand eight hundred and forty-one, two hundred and fifteen thousand six hundred and twenty-five dollars; on the first day of October, one thousand eight hundred and forty-one, two hundred and eighteen thousand four hundred and thirty-seven dollars and fifty cents; on the first day of January, one thousand eight hundred and forty-two, two hundred and twenty-one thousand two hundred

Digitized by Google

and fifty dollars; on the first day of April, one thousand eight hundred and forty-two, two hundred and twenty-four thousand and sixty-two dollars and fifty cents; on the first day of July, one thousand eight hundred and forty-two, two hundred and twenty-six thousand eight hundred and seventy-five dollars; on the first day of October, one thousand eight hundred and forty-two, two hundred and twenty-nine thousand six hundred and eighty-seven dollars and fifty cents; and on the first day of January, one thousand eight hundred and forty-three, one hundred and eighty-six thousand dollars, as in and by the last mentioned writing obligatory, now in the possession of this complainant, and ready to be produced and proved, as this honorable court shall direct, and to which, when produced and proved, this complainant, for greater certainty, begs leave to refer, reference being thereunto had, may more fully and at large appear.

And this complainant further shows unto your excellency, that the payment of the money mentioned in the said last mentioned writing obligatory, is guaranteed by an agreement made and entered into between the bank of the United States and this complainant, and that the said the bank of the United States, in pursuance and compliance with the terms of said guaranty, have paid to this complainant the several instalments which have become due on the said last mentioned writing obligatory.

And this complainant further shows unto your excellency, that the said Morris canal and banking company have paid to this complainant the three first instalments mentioned in the said writing obligatory, herein first mentioned, and that the instalments which became due on the first days of April, June and October, one thousand eight hundred and forty, are now in arrear, no part thereof having been paid or satisfied to this complainant, or to any person or persons by the authority or for the use of the complainant.

And this complainant further shows unto your excellency, that at the time of the date and giving of said two writings obligatory, hereinbefore mentioned, the said the Morris canal and banking company had an office or place of business at number forty-five William street, in the city of New York, where the principal part of their banking business and other moneyed transactions was done and carried on; which office the said company continued to occupy and use, as aforesaid, until sometime on or about the tenth day of March, one thousand eight hundred and forty, when the said company, having become embarrassed in its financial concerns, and being threatened with legal proceedings on the part of their creditors or some of them, under the laws of the state of New York, or such legal proceedings having been actually commenced against said

Digitized by Google

company, by one or more of its creditors, the said company withdrew their business from said city, and closed its office and place of business for the purpose, as said complainant expressly charges, of avoiding suits of their creditors, brought or which might be brought against them, in the state of New York.

And this complainant further shows unto your excellency, that on the first day of April, in the year of our Lord one thousand eight hundred and forty, an instalment of sixty-seven thousand one hundred and eighty-seven dollars and fifty cents, became due on the said writing obligatory, herein first mentioned and was payable in the city of New York, according to the terms of said writing obligatory, and that on that day, an agent of this complainant, for that purpose duly authorized, went to the place in said city, number forty-five, William street, where said Morris canal and banking company had formerly done business, as aforesaid, and being their last place of business in said city, for the purpose of presenting said writing obligatory and demanding payment on said instalment then due on the same, as aforesaid, but the same was closed, and no person could be found there, of whom payment could be demanded; and the said writing obligatory was thereupon, on the same day, duly presented at the bank of the United States, in the city of New-York, to the cashier thereof, and also at the banking house of the North American trust and banking company, in the city of New York, for payment of said instalment then due thereon, as aforesaid, and payment of said instalment was then and there requested of the said cashiers respectively, who severally declined paying the same; and this complainant expressly charges the truth to be, that no office or agent of the said Morris canal and banking company, authorized to pay said instalment so due and payable, as aforesaid, could be found on the said first day of April last, aforesaid, in the city of New York, to whom the said writing obligatory could be presented for payment of the said instalment so due and payable thereon, as aforesaid, and that the said the Morris canal and banking company neglected to provide funds for the payment of the said instalment when the same became due and payable, according to the tenor and effect, true intent and meaning of said writing obligatory.

And this complainant further shows unto your excellency, that on or about the twenty-second day of May, eighteen hundred and forty, Robert Stuart, esquire, who then was and ever since has been and still is, treasurer of said state of Michigan, visited the banking house of said Morris canal and banking company, at Jersey City, for the purpose of endeavoring to obtain payment of said instalment then due on said first mentioned writing obligatory, and to negotiate an arrangement for

Digitized by Google

receiving security for the ultimate payment of the money mentioned in said writing obligatory, he having full and lawful authority for that purpose; that the said Robert Stuart then and there and within the usual and proper business hours, had an interview with Edward R. Biddle, the president, and Isaac Gibson, the cashier of said company; that the said Robert Stuart stated to them that he had learned that said company had not paid said instalment due on the first of April, then last; that the state of Michigan was greatly in want of the money to pay her debts contracted for railroad iron and other purposes, and hoped the said company would pay the same to him; that the president replied, that the company could not then pay it, that they had not been able to pay the state of Indiana, nor even their interest on their foreign debts, and under these circumstances, he thought it would be wrong to give a preference to one creditor over another, even if they could; that a negotiation of two weeks and upwards was continued between the said Robert Stuart and said Edward R. Biddle and other officers of said company, in which said Robert Stuart, after becoming satisfied that no immediate payment could be obtained from said company, endeavored to obtain security for the payment of the money contained in said first mentioned writing obligatory; that no satisfactory proposition could be obtained from said company for such security; that a mortgage was offered on several pieces of property, which was altogether insufficient, and upon said Robert Stuart insisting on the proposition for security being enlarged, he was informed that many of the assets of said company were hypothecated or pledged, and were then not under the control of the company, but that they hoped to relieve a number of such assets in the course of six or eight weeks, and requested said Robert Stuart to give them that time to complete their negotiations for that purpose, and that they hoped then to be able to make such a proposition for giving security, as aforesaid, as would be satisfactory to said Robert Stuart; to this, the said Robert Stuart consented, and shortly after the expiration of said eight weeks, to wit: on or about the twenty-seventh day of August, eighteen hundred and forty, the said Robert Stuart again visited the said banking house for the purpose of continuing and concluding said negotiation, but was informed by said cashier, that Mr. Biddle, the president, was absent in Pennsylvania, and would not return for some time; that the said Robert Stuart accordingly waited for the return of the president, and on or about the eighth day of September, eighteen hundred and forty, again waited on him at the banking house of said company, when the negotiation for giving security for the payment of said debt, was resumed, and the same has been continued until on or about the second day of October, eighteen hundred and forty,

Digitized by Google

without any proposition being made by or in behalf of said company, to give security satisfactory or sufficient, although the said Robert Stuart, in behalf of this complainant, at the request of said Edward R. Biddle, president, as aforesaid, offered to extend the time for the payment of said instalments; provided the same were sufficiently secured.

And this complainant further shows unto your excellency, that on the first day of July, in the year of our Lord, one thousand eight hundred and forty, another instalment became due, payable in the said writing obligatory first mentioned, amounting to the sum of sixty-eight thousand one hundred and twenty-five dollars; and that on the first day of October, in the year of our Lord, one thousand eight hundred and forty, another instalment became due payable thereon, amounting to the sum of sixty-nine thousand and sixty-two dollars and fifty cents, and the funds not being provided for the payment thereof in the city of New York, where the same was made payable, the said Robert Stuart, as such treasurer as aforesaid, afterwards, to wit: on the twenty-third day of October, in the year last aforesaid, at the banking house of said company at Jersey City, aforesaid, within the usual and proper hours of business, presented the said first mentioned writing obligatory, to Edwin Lord, vice president of said company, the said president and cashier being absent, and the said Edwin Lord, vice president, as aforesaid, then and there acting for and representing said company in the absence of said president and cashier, and then and there demanded payment of him, as well of the said instalment due and payable on the first days of April and July last past, and also of the interest which had accrued on the same; but that the said Edwin Lord then and there refused to pay the same or any part thereof, and made answer to the said Robert Stuart, that "I cannot pay it."

And this complainant further shows unto your excellency, that the said two writings obligatory hereinbefore mentioned, were given to this complainant by said Morris canal and banking company, under the circumstances hereinafter mentioned and set forth, that is to say: that by an act of the legislature of the state of Michigan, entitled "An act authorizing a loan of a sum of money not exceeding five millions of dollars," approved March 21, 1837, it was enacted, that the governor should be, and he was thereby authorized and directed in the name and behalf of the people of said state, to negotiate and agree for a loan or loans, not exceeding in the whole, five millions of dollars, redeemable at pleasure of the state at any time after the expiration of twenty-five years from and after the first day of January, one thousand eight hundred and thirty-eight, on the best and most favorable terms and conditions that could, in his judgment, be obtained at an interest not ex-

Digitized by Google

ceeding five and a half per centum per annum, payable half yearly, to be expended for the purposes of internal improvement within said state, pursuant to appropriations made by law, to be deposited in the treasury of said state, and denominated the fund for internal improvement, and that the same should be drawn therefrom agreeably to such provisions and appropriation as the legislature might make for works of internal improvement in said state; that, for the purpose of effecting the loan or loans aforesaid, the governor was thereby authorized and directed to cause to be made and issued certificates of stocks or bonds, in sums not less than one thousand dollars each, to be signed by himself and countersigned by the secretary of state, with the great seal of said state impressed thereon; that such certificates or bonds should be drawn in favor of the auditor general, and being indorsed by him, should become transferable and delivered to the governor, and be transferable by him in such form as he should decide, to be redeemable as aforesaid, and to bear interest as aforesaid, payable on the first days of January and July, in each year, in the city of New York, or elsewhere in the United States; should the governor find it advantageous so to contract, and that it should be deemed a sufficient execution of said power, that the governor cause the said certificates or bonds to be sold: *Provided*, That said certificates or bonds should not be sold for less than their par value, and the governor was thereby authorized to make such arrangements, contracts and agreements in behalf of the people of said state, as in his judgment should secure the payment and safe transmission of the moneys which might arise from the sale of the certificates or bonds aforesaid, to the treasurer of said state, to meet and be applied to the objects of appropriation expressed in said act, as the same should be wanted; and in the said act certain other provisions are contained, pledging the faith of said state for the payment of the loan or loans thereby authorized to be contracted for; and providing for the payment of all contingent expenses which might be incurred in carrying out the provisions thereof, and also providing a sinking fund for the payment of the principal and interest of the loan authorized thereby.

And this complainant further shows unto your excellency, that by another act of the legislature of said state of Michigan, approved November 15, 1837, entitled "An act to amend an act entitled 'an act authorizing the loan of a sum not exceeding five millions of dollars,'" approved March 21, 1837, the governor of said state was authorized to negotiate and agree for the aforesaid loan or loans, at an interest not exceeding six per centum per annum, instead of five and a half per centum per annum, as in the said original act was provided,

Digitized by Google

and in and by the said two acts of the legislature of the said state of Michigan, duly authenticated copies thereof may more fully and at large appear, and to which this complainant, for greater certainty, begs leave to refer.

And this complainant further shows unto your excellency, that by another act of the legislature of the said state of Michigan, entitled "An act authorizing a loan of one hundred thousand dollars, for the relief of the Allegan and Marshall railroad company," passed the sixth day of April, 1838, it was, amongst other things, enacted that the governor of said state should be, and thereby was, authorized and directed, in the name and behalf of the people of the said state of Michigan, to negotiate and agree for a loan or loans of one hundred thousand dollars, on the same terms, under the like restrictions and with the same powers as are contained in the said act entitled "An act authorizing the loan of a sum of money not exceeding five millions of dollars," as by the said act passed April sixth, eighteen hundred and thirty-eight, reference being thereto had, will more fully and at large appear.

And by another act of the legislature of the said state of Michigan, entitled "An act authorizing the loan of a sum not exceeding one hundred thousand dollars, for the benefit of the Ypsilanti and Tecumseh railroad company," passed on the same day and year last aforesaid, it was, amongst other things, enacted, that the governor of said state should be, and thereby was, authorized and directed, in the name and behalf of the people of the said state of Michigan, to negotiate and agree for a loan or loans not exceeding one hundred thousand dollars, on the same terms, under the like restrictions, and with the same powers as are contained in the said act entitled "An act authorizing a loan of a sum of money not exceeding five millions of dollars," as by the said last mentioned act, passed April sixth, eighteen hundred and thirty-eight, reference being thereunto had, will more fully and at large appear.

And this complainant further shows unto your excellency, that after the approval of the last mentioned acts, to wit: on or about the first day of June, in the year of our Lord one thousand eight hundred and thirty-eight, Stevens Thompson Mason, then being governor of said state of Michigan, entered into an agreement in writing with the said Morris canal and banking company, in the words or the effect following, that is to say:

Articles of agreement entered into, this first day of June, in the year of our Lord one thousand eight hundred and thirty-eight, between the people of the state of Michigan, by Stevens Thompson Mason, governor of the said state of Michigan, acting in behalf of the people, and under the authority of the state aforesaid, of the first part, and the Morris canal and

Digitized by Google

banking company, a body politic and corporate, for themselves and their successors, of the second part.

It is agreed between the parties, as above mentioned, as follows:

First. The parties of the first part have contracted with and employed, and do hereby contract with and employ the parties of the second part, as agents to sell the bonds issued and to be issued by the state of Michigan, by virtue of the act of the legislature of said state, entitled "An act authorizing a loan of a sum of money not exceeding five millions of dollars," approved the twenty-first day of March, eighteen hundred and thirty-seven, and an act supplementary thereto, approved the fifteenth day of November, eighteen hundred and thirty-seven; also, an act entitled "An act authorizing a loan of one hundred thousand dollars, for the relief of the Allegan and Marshall railroad company," and an act entitled "An act authorizing a loan of a sum not exceeding one hundred thousand dollars, for the benefit of the Ypsilanti and Tecumseh railroad company," the two latter approved on the sixth day of April, eighteen hundred and thirty-eight; bearing interest at the rate of six per cent per annum, payable semi-annually, the principal and interest to be made payable in the city of New York, and in the lawful money of the United States, and redeemed at any time after the years eighteen hundred and fifty-nine, and eighteen hundred and sixty-three, as provided for by the aforesaid acts of the legislature of the said state, to be sold by the said agents, the parties of the second part, at such times and in such parcels, and either in this country or in Europe, as they may deem advisable, and for the best interests of those concerned therein. And the parties of the first part shall allow to the parties of the second part, for their agency and services in the premises, and in consideration thereof, a commission of two and a half per cent on the proceeds of sale, which is also to be in lieu of all other expenses, that may be incurred in the negotiation and sale of said bonds, and to be by said agents deducted from the proceeds of said sales.

Second. The parties of the second part, shall have and deposit the proceeds of said sales, and of any benefit to be derived from the difference of exchange, in case the principal, or any part, shall be contracted for and received in Europe, in the city of New York, ready to be there delivered to the parties of the first part, or to such person or persons as may be duly authorized to receive the same; and they, the parties of the second part, hereby guarantee the safe transmission thereof, to the city of New York, in case the sales be made and payable elsewhere; and they, the parties of the second part, further guaranty and agree, that in case the sales of the said bonds shall be so negotiated as that the whole proceeds of such

Digitized by Google

sales, and of the benefit of the exchange, as above mentioned, if any, shall not equal the par value of the aggregate amount of the bonds sold, they, the parties of the second part, shall make up the deficiency, viz: they shall, and will, allow and pay to the parties of the first part, or such person or persons as may be duly authorized to receive the same, in addition to such proceeds, the difference between the said proceeds and the par value of said bonds, after deducting their commissions as aforesaid, on the par value of which is to be allowed them; and in case the sums realized on the sale of the said bonds, shall amount to par, the parties of the second part shall allow and pay such proceeds in the city of New York, as aforesaid, after deducting their commissions, as aforesaid; and the parties of the second part shall and will advance and pay such proceeds in the city of New York, as aforesaid, after deducting their commissions, as aforesaid, at the times hereinafter mentioned, viz: two hundred and fifty thousand dollars to be paid and advanced in cash, on the execution of this contract; one million and fifty thousand dollars, as may be required by the parties of the first part, or on their behalf, the same being subject to their order; and the residue of such of their proceeds as are to be paid over, under this contract, shall be paid quarterly, in sums of two hundred and fifty thousand dollars each, the first payment thereof to be made on the first day of July, in the year of our Lord one thousand eight hundred and thirty-nine, until the whole of such proceeds shall have been paid, whether the parties of the second part shall be in funds from the proceeds of such sales to meet the instalments, or otherwise, and in consideration of the above guaranty and stipulations in this clause mentioned, it is further agreed, that whatever the sum may be, realized on the sale of the aforesaid bonds, over and above the par value, such excess, to the amount of five per centum and under, shall be equally divided between the parties hereto. The parties of the second part, to retain their half thereof; and all beyond the said five per cent, shall be retained by the parties of the second part. The portions of such excess so to be retained by them, to be in addition to their commission of two and a half per cent on the par value of the whole five millions, as aforesaid.

Third. The said bonds shall be drawn in such sums, in such forms, and be delivered to the parties of the second part, at such times as may be desired by them prior to the instalments becoming due; the same to be prepared, nevertheless, conformably with the laws authorizing the issuing thereof.

Fourth. One million three hundred thousand dollars of said bonds are to be delivered to the said parties of the second part on the execution of this contract, and such farther delivery of the bonds is from time to time to be made to the said parties

Digitized by Google

of the second part, as always to put them in possession of one million of dollars in bonds, in advance of the payment by them actually made to the said parties of the first part, or the person or persons authorized to receive the same.

Fifth. The said parties of the second part are to have the option of paying over in the city of New York the balance of five millions of dollars, deducting thereout their commissions of two and a half per cent, or any part of such balance, and receiving the residue of the bonds of five millions of dollars in thirty days, notice to be given in writing to the governor, for the time being, of the state; and whatever may remain to be paid, if any, shall be paid over by the parties of the second part, in the city of New York, as soon thereafter as the whole bonds can be disposed of and realized and the account closed.

Sixth. It is further agreed that all and singular the bonds of five millions of dollars above mentioned and to be delivered to the parties of the second part, at their banking house in Jersey city, in the state of New Jersey; and it is further agreed and understood, in consideration of the premises, and more particularly of the above guarantees entered into by the parties of the second part, that this agency shall be irrevocable and shall continue in full force untill all the services and stipulations herein mentioned, shall be fully performed and consummated.

In witness whereof, his excellency the governor of the said state, in the name and on behalf of the people of the said state of Michigan, has hereunto set his hand and affixed his seal, and the parties of the second part have caused their corporate seal to be hereunto affixed and attested by their vice president and cashier, the day and year first above written.

STEVENS T. MASON, [L. S.]

The Morris canal and banking company, by

E. R. BIDDLE, [L. S.]

Vice President.

In presence of

CH. B. BURCH,

WALTER BETTS, JR.

Attested, ISAAC GIBSON, *Cashier.*

And this complainant further shows unto your excellency, that on or about the fourth day of the same month of June, aforesaid, a certain other pretended agreement, in writing, was entered into by the said Stevens T. Mason, governor as aforesaid, with the said the Morris canal and banking company, in the words and figures as to the effect following, that is to say:

Memorandum of an agreement made and entered into this fourth day of June, A. D. 1838, by Stevens T. Mason, governor of the state of Michigan, with the Morris canal and banking company:

Digitized by Google

Whereas, the said Morris canal and banking company have passed to the credit of the said Stevens T. Mason, the sum of one million three hundred thousand dollars for an amount of Michigan six per cent bonds, equal, at par, to that sum.

Now, in consideration of such payment as aforesaid, the said Stevens T. Mason does hereby agree to receive said sum of one million three hundred thousand dollars, in the notes of the Morris canal and banking company, and to disburse them, so far as the exigencies of the state of Michigan may allow, as follows, to wit: two hundred and fifty thousand dollars on or about the first day of August next; one hundred thousand dollars on or about the first day of September next, and one hundred thousand dollars on the first days of each of the ensuing months.

In witness whereof, the said Stevens T. Mason has hereunto set his hand and seal, the day and year first above written.

STEVENS T. MASON, [L. S.]

And this complainant further shows unto your excellency, that on or about the fourteenth day of July, in the year last aforesaid, a certain other pretended agreement was made and entered into between one John Norton, jr., acting in behalf of said Stevens Thompson Mason, governor as aforesaid, and the said the Morris canal and banking company, in the words and figures, or to the effect following, that is to say:

Whereas, the Morris canal and banking company have contracted with the honorable S. T. Mason, governor of the state of Michigan, to sell the bonds of said state, and have a commission for said agency, as stipulated in a contract bearing date the first day of June, 1838:

And whereas, it was agreed and understood between the parties that the Morris canal and banking company should pay certain sums of money on the account of sale of said bonds, on first day of August next; also, on first day of September, October, November, December, January, February, March and April following:

And whereas, it is represented by John Norton, jr., Esq., cashier of state bank of Michigan, fiscal agent of said state, and acting in behalf of governor Mason, with his full power, that it will better promote the interests of the state, and internal improvement fund, to transfer money to be received on account of above payments to the treasury of said state, by drawing bills from Detroit on New York, to be accepted by Morris canal and banking company, than to transfer the amount from New York to Michigan, as was intended to be done, when contract was executed, in bank bills:

It is hereby mutually agreed and understood by and between the Morris canal and banking company and said John Norton, jr., acting in behalf of said governor Mason, that said John

Digitized by Google

Norton, jr., shall draw bills from Detroit, on Morris canal and banking company, payable at an average of not less than ninety days after several instalments became due and payable.

And it is further agreed by the parties to these presents, that said bills when drawn in conformity with the foregoing stipulations and by authority of governor Mason, shall be accepted and paid by the Morris canal and banking company.

And it is further agreed by said Norton, that in consideration of these presents, and especially in consideration of said Morris canal and banking company, accepting when presented, and paying said bills when due for amount of each instalment, they shall be considered and received as payment in full for the several instalments, in the same manner as though each payment was made in cash, on the day they are understood to be due by the original understanding and agreement.

JOHN NORTON, Jr.,
E. R. BIDDLE, *V. P.*,
of Morris Canal and Banking Company.

In presence of

M. GRISWOLD.

New York, July 14, 1838.

As in and by the said several agreements which this complainant prays may be produced as this honorable court shall direct, and to which, when produced, this complainant for greater certainty, begs leave to refer, may more fully and at large appear.

And this complainant further shows unto your excellency, that this complainant is advised by its counsel, and therefore, insist that the said Stevens Thompson Mason, as governor of said state of Michigan, had no lawful authority to make or authorize the said two last mentioned agreements to be made, that the same was made by the said governor and his said agent without any consideration given, paid or allowed, to the complainant, and materially altered and modified the said original agreement to the great prejudice, loss and damage of the complainant, that by the legal and true construction of said original contract, the commissioners of said company on said loan were made payable to the said company, from and out of the proceeds of the sales of said bonds at par value, when and so often as such proceeds were paid over to the complainant by said company, and the complainant was also entitled to realize and receive the interest on all payments, to be made to the complainant under said contract equal to the interest payable on said bonds up to the several periods when such payments were to be made to the complainant. Whereas, by the effect of the said supplemental agreements the payment of the sum of thirteen hundred thousand dollars, therein mentioned, was agreed to be paid in instalment, and such payments postponed

Digitized by Google

for long periods of time, beyond the time when the bonds for said loan delivered by the said Stevens T. Mason, to said company, as hereinafter mentioned, bore date and commenced bearing interest contrary to the true intent and meaning of said original agreement, and without any equivalent by way of interest, or otherwise being allowed or paid to the complainant for such delay of payment, and thereby this complainant unjustly lost by way of interest on the said sum of thirteen hundred thousand dollars, the sum of fifty thousand seven hundred and fifty dollars, or thereabouts, and the said the Morris canal and banking company, thereby received upon said articles of agreement of the first of June, 1838, the benefit of that amount over and above the two and a half per cent commission, mentioned in said original agreement.

And this complainant further shows unto your excellency, that this complainant has been informed and believes that on or about the said fourth day of June, in the year eighteen hundred and thirty-eight, and simultaneously with the making of the said memorandum of an agreement dated on that day, and above recited in full, an agreement was entered into by the said Morris canal and banking company, with one Theodore Romeyn, an attorney at law, then and still residing at Detroit, in the said state of Michigan, in the words and figures or to the effect following, to wit:

"Articles of agreement made and executed this fourth day of June, A. D. 1838, between the Morris canal and banking company of the one part, and Theodore Romeyn of the second part:

"The said company having purchased of the state of Michigan, thirteen hundred thousand dollars of the state bonds, bearing interest at the rate of six per cent from the first day of May, A. D. 1838, and having paid cash for the same, which cash the agent of said state has agreed to take the notes of said company, and to disburse them as follows, to wit: two hundred and fifty thousand dollars on the first day of June, A. D. 1838; the like sum on the first day of August next, and the remaining eight hundred thousand dollars in monthly instalments of one hundred thousand dollars each, beginning on the first day of September, and ending on the first day of April next.

"And in consideration of the stipulations and agreements hereinafter set forth, the said parties of the first part hereby agree and covenant to pay to the said party of the second part, one equal half of all the interest accruing on and from said bonds, between the first day of May, A. D. 1838, and the different times when the moneys paid therefor shall be disbursed, in proportion to the amounts which may remain undisbursed; that is to say, one month's interest on the first sum of two

Digitized by Google

hundred and fifty thousand dollars; three month's interest on the second sum of two hundred and fifty thousand dollars; four month's interest on the third sum of one hundred thousand dollars, and so on until the whole of said sums are disbursed.

"Said parties of the first part do further covenant and agree to pay to said party of the second part, interest at the rate of two per cent per annum, upon said bills or notes paid to said state, for all the time that may intervene between the disbursing of said moneys by said state, at the stipulated periods, and the return of said notes to the parties of the first part.

"Said parties further stipulate and agree, to keep an accurate description of said notes, and of the times of their return to them.

"In consideration of the foregoing stipulations, said party of the second part agrees to release, and does hereby release to said parties of the first part, all his right, title and interest of and to said stock, or any portion thereof, and does hereby accept the above in full satisfaction for all claim for commissions, agencies and professional services rendered in the management and negotiation of said stock.

"It is further understood and agreed, that the accounts of the said parties under this agreement, shall be settled and adjusted on or before the first day of April next, when the balance due to the party of the second part is to be paid him, to his executors, administrators or assigns, by the said parties of the first part or their successors;" and which [agreement was executed by the respective parties thereto, on or about the day of its date, which agreement, or the counter part thereof, this complainant believes is in the possession or under the control of the said Morris canal and banking company, and prays that said company may be compelled, by order of this court, to produce the same, and to which, when produced, this complainant refers for great certainty and fullness, or to the contents thereof.

And this complainant further shows unto your excellency, that the said Theodore Romeyn was, in the year 1838, the confidential friend and adviser of the said Stevens T. Mason, and was with him in the city of New York, in the months of May and June of that year, and while the said Mason was negotiating the aforesaid contract of loan with the said Morris canal and banking company, and the aforesaid subsequent arrangement made on the fourth day of said June, respecting the said thirteen hundred thousand dollars; and this complainant is informed and believes that the said memorandum of agreement between the said Mason and said company, made on the said fourth day of June, was executed simultaneously with the said agreement betweent he said company and Romeyn, and that said Stevens T. Mason, when he entered into

Digitized by Google

executed the said memorandum of agreement of the fourth of June, well knew of the said agreement between the said company and Romeyn, and of its execution or intended execution; and that the said Stevens T. Mason was induced to enter into such agreement with said company by reason of the said agreement between said company and Romeyn; and also, by reason, as this complainant is informed and believes, of an agreement and understanding, express or implied, between said Romeyn and Mason, that said Mason should have a moiety or some other portion of the pecuniary advantage secured to said Romeyn by the said agreement between him and said company; and further, that the said company and its officers who negotiated said loan with said Mason, and negotiated and made with him the said subsequent agreement of the fourth of June, well knew of the said agreement between said company and Romeyn, and of the said reasons and considerations which induced the said Mason to enter into said agreement of the fourth of June, and of the whole arrangements between all the parties concerned, out of which said agreement between said Romeyn and said company, and between said Mason and said company, of the fourth of June, arose. And further, this complainant is informed and believes, that the subsequent arrangement of the fourteenth of July, eighteen hundred and thirty-eight, between John Norton, Jr., and said company, and hereinbefore recited, grew out of, was induced by, and resulted from said arrangement of the fourth of June, and which was well known to said company, and the officers who conducted the business thereof at the time said company made such agreement with said Norton; and further, said company, and the said officers thereof, well knew at the time said Mason made said agreement of the said fourth of June, with said company, for postponing the payment of the said thirteen hundred thousand dollars, and when said company made such agreement with said Norton, that neither said Mason nor said Norton had any right or authority to make said agreements, or either of them, in behalf of this complainant; and this complainant insists and charges that both of such agreements are not only void for want of authority to make them, but are also for being without consideration and formed in fraud, and this complainant insists that the said company in justice and equity, ought to account for and pay to this complainant the said sum of fifty thousand seven hundred and fifty dollars, or thereabouts.

And this complainant further shows unto your excellency, that the said Stevens Thompson Mason, governor, as aforesaid, at or about the making of such original agreement, delivered to the said Morris canal and banking company, at their request, bonds of the complainant to the amount of thirteen hundred thousand dollars, and afterwards and some time du-

Digitized by Google

ring the year eighteen hundred and thirty-eight, he also delivered to said company, at their request, further bonds of the complainant, to the amount of three millions seven hundred thousand dollars; all of which bonds, except one hundred thousand dollars, bore date the first day of May, in the year last aforesaid, and secured the payment of interest at six per centum per annum, on the first days of July and January in each and every year, and was redeemable, by payment of the principal, on and after the first day of January, eighteen hundred and sixty-three; and upon said bonds for said sums of one hundred thousand dollars, interest was payable, as aforesaid, and the same were redeemable, by payment of the principal, on and after the first day of January, eighteen hundred and fifty-nine.

And this complainant further shows, that after the said bonds had all been delivered to the said Morris canal and banking company, as aforesaid, the aforesaid two writings obligatory of the said Morris canal and banking company, and the aforesaid guaranty of the bank of the United States, were executed and delivered to the said Stevens T. Mason, for the use of the complainant and for the purpose of securing the payment of the said sum of three millions seven hundred thousand dollars, after deducting the commissions aforesaid, in instalments, as mentioned in said original agreement; that the interest upon said several instalments, instead of being made payable quarterly, is calculated up to the maturity of the instalments, respectively. Whereas, this complainant insists and submits to this honorable court, that the said Stevens T. Mason had no right or authority from this complainant, to postpone the payment of interest, as provided in said two writings obligatory, and that, according to the spirit, true intent and meaning of the aforesaid original agreement, the interest on said three millions seven hundred thousand dollars ought to have been made payable quarterly or half yearly, to meet the payment of the interest on the bonds of the complainant, so issued and delivered to said Morris canal and banking company, as aforesaid, and that the commissions of the said Morris canal and banking company, of two and a half per cent, ought not to have been paid to, or received or retained, by them, except only as the several instalments were paid to the complainant, and in proportion to the amount of such instalments; that the said Stevens T. Mason had no right or authority from this complainant to assent to the paying of said commissions beyond the amount thereof, on the instalments paid by said company on said loan, nor to the same being received or retained by said company, except only as the said instalments were paid to this complainant. Whereas, this complainant expressly charges and states the truth to be, that the said Morris canal and banking company

Digitized by Google

unjustly detained the said commissions on the whole amount of said loan of five millions of dollars, amounting to one hundred and twenty-five thousand dollars, out of the first payment of two hundred and fifty thousand dollars, mentioned in said original agreement, to be paid at the execution thereof; and this complainant insists that the said Morris canal and banking company are justly and equitably bound to allow and pay to this complainant, over and above the sums of money mentioned in said writing obligatory, a sum of money sufficient to make up to the complainant the loss in interest between the same being secured to be paid quarter yearly or half yearly, and being secured to be paid, as in said writings obligatory, is set forth and provided; and also, for the loss of interest sustained by the complainant, by reason of the said company retaining the whole amount of the commissions in said loan of five millions, in advance, amounting to the sum of fifty-one thousand two hundred and ten dollars and sixty-three cents.

And this complainant further shows unto your excellency, that the said instalments due on the said two writings obligatory, on the first days of July and October, eighteen hundred and thirty-nine, and the first day of January, eighteen hundred and forty, were not paid until thirty days after the expiration of the time in said writing obligatory mentioned and limited for the payment of such instalments respectively, that no interest was allowed or paid for such delays of payment, and the said company are now justly indebted to this complainant for the interest on said three instalments for thirty days, amounting to the sum of three thousand nine hundred and eighteen dollars seventy-five cents, or thereabouts.

And this complainant further shows unto your excellency, that the said the Morris canal and banking company have become and are insolvent, and did become so insolvent on the first day of March last, within the true intent and meaning of the act of the legislature of the state of New Jersey, passed on or about the sixteenth day of February, in the year of our Lord one thousand eight hundred and twenty-nine, entitled "An act to prevent frauds by incorporated companies," and as evidence of such insolvency, this complainant shows unto your excellency, that the said company have neglected and refused to pay to this complainant the amount justly due on the said first mentioned writing obligatory, upon the same being lawfully demanded within the proper and usual hours of business, as aforesaid, and also neglecting and refusing, when requested so to do, to give sufficient security for the ultimate payment of the money mentioned in and intended to be secured thereby. That the said company are indebted to the state of Indiana in the sum of one million four hundred thousand dollars and upwards, and they neglect and refuse to pay the same or any

Digitized by Google

part thereof, or the interest due thereon. That the said company are indebted to certain persons in Holland, or some other part of Europe, in the sum of seven hundred and fifty thousand dollars, or thereabouts, for the payment of which they have mortgaged so much of their canal as lies between the river Passaic, at the city of Newark, and the Delaware river, it being the debt usually denominated the Dutch loan.

That the said company are indebted in the sum of one million two hundred thousand dollars, or thereabouts, besides interest, upon their bonds or obligations held in England and other parts of Europe, upon which, interest is payable semi-annually, one-half year's interest whereof became due and payable on the first day of July last, and the said company have neglected and omitted to pay the same, and upon being requested by the agents of the holders of said bonds or obligations, to permit them to examine into their financial affairs and business, for the information and satisfaction of their principals, the said company have refused to permit them to make such examinations.

That the said Edward R. Biddle, president of said company, has admitted and declared to the said Robert Stuart, treasurer of said state of Michigan, that the said company could not at present pay the said instalments due to this complainant, or any part thereof, or the said debt due from them to the said state of Indiana, or the interest on the same, or the interest due on said large debts in Europe, before mentioned, for the want of funds.

That a suit has been commenced in the city of New York against said company, by David Leavitt, president of a banking association called the American exchange bank, on the behalf and for the benefit of said association, on a post note drawn by said Morris canal and banking company, dated the first day of March, eighteen hundred and thirty-nine, payable three hundred and sixty-five days after date, for one hundred and fifty thousand dollars, which suit was commenced on the tenth day of March, eighteen hundred and forty, there then being due on said post note, one hundred and twenty thousand three hundred and forty-six dollars and ninety-seven cents, and on which post note there was due and payable on the first day of said March, by special contract, the sum of one hundred and twenty thousand one hundred and thirty nine dollars and fifty-nine cents, and was on that day demanded of the said company within the usual and proper hours of business, and payment thereof neglected and refused by said company, which suit is still pending and judgment thereon about to be entered, and although the real and personal property of said company, to the value of two hundred and twenty thousand dollars, is attached by virtue of said suit, and the said suit is a lien on the

Digitized by Google

same, the said company omit and neglect to pay the amount due on said note and relieve their property from the lien created by said suit.

That the said company are indebted to Abraham Richards and David Selden, upon a bond drawn by the said company, for thirty-five thousand dollars, due and payable on the first day of March last past, and which bond, when the same became due and payable, was duly presented for payment, and payment thereof was duly demanded at the banking house of said company within the usual and proper hours of business, and payment thereof was neglected and refused, and a suit has since been commenced thereon by said Abraham Richards and David Selden, against said Morris canal and banking company by process of attachment, by virtue whereof the same real and personal estate of said company has been attached, which was attached in said suit of David Leavitt, and the said suit is yet pending and remains a lien on said property, and the said company nevertheless omit and neglect to pay the said post note.

That the said company have suspended their ordinary banking business for want of funds to carry on the same.

That the said company have expended large sums in building and erecting their canal, and constructing the various docks, wharves and other appendages of the same, and the said canal has hitherto been unprofitable, the proceeds of the business of the same altogether inadequate to the payment of the interest of the money expended thereon.

That the said company have appropriated their funds for the purchase of lands not necessary for the object of the act of incorporation, or of the acts supplemental or in addition thereto, or amendatory thereof, and not authorized by said acts.

That said company are appropriating and applying their funds to the establishing of iron works, the manufacture of iron and other purposes, not authorized by said act, and in violation of their charter.

That said company have, for a long time, kept up and still keep up a large and expensive establishment for business, and have employed and continue to employ a large number of officers, to whom they have paid and now pay large salaries.

That said company have an amount of bank notes in circulation unredeemed, and owe various debts besides those hereinbefore mentioned, and they neglect to apply their funds to the payment of their debts.

That the said company have sustained heavy losses in their business upon notes and bills discounted by them, and by various other means, within the past three or four years.

And this complainant further shows unto your excellency, that this complainant has been informed and believes, and char-

Digitized by Google

ges the fact to be, that the said company, the directors and officers thereof, have, since the said company became insolvent, as herein before stated, sold, conveyed, assigned and transferred to divers persons and bodies politic and corporate, and especially to the state of Indiana, the estate, effects, choses in action, goods, chattels, rights, credits, lands and tenements of the said company, and which sales, conveyances, assignments and transfers, this complainant is advised and insists, are contrary to the statute in such case made and provided, and are inoperative and void.

That the property of the said company consists of a house and lot in the city of New York, worth one hundred thousand dollars, or thereabouts; that they have personal property in said city, supposed to be worth two hundred thousand dollars, or thereabouts; that they own or have an interest in lands in Florida, to the value of one hundred and sixty thousand dollars, or thereabouts.

That they have an interest in a company at Stanhope, in New Jersey, called the Morris and Sussex manufacturing company, of the value of one hundred thousand dollars, or thereabouts. That they own their banking house and lot at Jersey City, and considerable other real estate in the state of New Jersey, over and above their canal and its appendages, which is supposed to be of the value of one hundred and fifty thousand dollars.

A tract of coal land in the state of Pennsylvania, containing one thousand acres, the value whereof is supposed to be fifty thousand dollars, and personal property in New Jersey to the value of fifty thousand dollars.

Besides which, the said Morris canal and banking company have little or no property known to this complainant.

And this complainant insists and expressly charges the truth to be, that the whole real and personal estate of the said Morris canal and banking company, is insufficient to pay and satisfy its just debts.

And this complainant well hoped that the said Morris canal and banking company would have paid to this complainant the said several instalments, which have become due on the said first mentioned writing obligatory, with the interest thereon hereinbefore mentioned, and would also have paid to the complainant the said several sums of money hereinbefore mentioned, justly due to the complainant from the said company, by reason of the pretended alterations and modifications of the aforesaid original agreement, as hereinbefore mentioned, and the postponement of the payment of interest on the sums of money mentioned in said two writings obligatory, as hereinbefore stated, and also on account of the delay of the payments of the said instalments, which have been made on said writings

Digitized by Google

obligatory severally, until the expiration of thirty days after the same respectively became due and payable, and also have repaid the money unjustly retained for commissions by said company, as herein before stated, and the interest thereon, and would have applied their property justly and fairly to the payment of the debts owing by said company, and not expended or applied the same to objects not permitted by their charter, or to the payment of the salaries of officers and agents not required by the present condition of the said company, and would not, after they became so insolvent as aforesaid, have sold, conveyed, assigned and transferred the estate, property and effects of said company, as in equity and good conscience they ought to have done.

But now so it is, may it please your excellency, that the said the Morris canal and banking company, the said Edward R. Biddle, president of said company, and the said Isaac Gibson, cashier of the said company, and Samuel L. Southard, one of the directors thereof, combining and confederating to and with divers other persons, at present unknown to this complainant, but whose names, when discovered, this complainant prays may be inserted herein, and they made parties hereto, with proper and apt words, to charge them, absolutely refuse so to do, and they, or some of them, pretend that they cannot at present pay the complainant the said three instalments due on the said first mentioned writing obligatory, with the interest thereof as aforesaid, and then again pretend that the said company is not insolvent: Whereas, this complainant insists and expressly charges the truth to be, that the said company have neglected and refuse to pay their just debts when demanded within the usual and proper hours of business, and have stopped payment by neglecting or refusing to redeem their notes and other evidences of debt, in specie, or the notes of some other incorporated bank, current at the time of such neglect or refusal, in this state, at par value, for want of funds, and have suspended their ordinary banking business for want of funds to carry on the same.

And that the said Morris canal and banking company is insolvent within the true intent and meaning of the aforesaid act of the legislature of the state of New Jersey, entitled "An act to prevent frauds by incorporated companies," and has been so insolvent since the first day of March last past, and again the said defendants, or some of them, pretend that the said Morris canal and banking company is not justly or equitably bound to pay this complainant any further or other sums of money than those mentioned in the two writings obligatory, and the two said supplementary agreements, hereinbefore mentioned, were made with the said Stevens T. Mason and John Norton, jr., by said company, *bona fide*, and for a good and

Digitized by Google

lawful consideration, and that the said Mason and Norton, at the time of making said agreement, had lawful authority so to do, and to bind this complainant; and also, that the postponement of the payment of the interest upon the several instalments in said writing obligatory mentioned, was in accordance and according to the true intent and meaning of the aforesaid original agreement, and that the said company was and is entitled, after said instalments severally became due and payable, according to said writings obligatory, to take thirty days respectively, further time to pay the same, and were entitled to retain the same commissions as hereinbefore mentioned.

Whereas, this complainant insists and expressly charges that the said company is justly and equitably bound to pay to this complainant the several sums of money hereinbefore mentioned and insisted upon, over and above the sums of money in said writings obligatory set forth, and that the said pretended supplemental agreements were made by the said company with the said Stevens T. Mason, and the said John Norton, jr., pretending to act under the authority of the complainant, collusively, without lawful authority, and in fraud of the just rights of the complainant; and that the postponement of the payment of interest upon said several instalments, until they respectively became due as aforesaid, and the retention of the commissions, as aforesaid, was contrary to said original agreement, and unjust and inequitable in its operation upon the rights and interest of the complainant.

And that the said several instalments ought to have been paid punctually at the several periods fixed and limited in said writing obligatory, for the payment thereof, respectively, and that any postponement of such payments was contrary to the true intent and meaning of said writings obligatory, and that the complainant is justly and equitably entitled to require and receive payment from said company of interest for the delay of payment of said several instalments which have been paid, from the time the same became respectively due, until payment thereof was actually made; and the said defendants make other unjust and inequitable pretences, which are contrary to equity and good conscience, and tend to the manifest wrong and oppression of this complainant.

In consideration whereof, and for as much as this complainant is remediless in the premises, at and by the strict rules of the common law, and can have adequate relief only in this honorable court, when matters of fraud and of this nature are properly cognizable and relievable, and more especially as this court has full power and jurisdiction in matters of this nature, by force of the statute to prevent frauds by incorporated companies, aforesaid, in such case made and provided, aforesaid. To the end, therefore, that the said the Morris canal and bank-

Digitized by Google

ing company may, under their common seal and that of the said Edward R. Biddle, Isaac Gibson and Samuel L. Southard may, upon their several and respective corporeal oaths, true, full and perfect answers make to all and singular the premises, as fully and particularly as if the same were here again repeated, and they thereto particularly interrogated, paragraph by paragraph, with dates, sums and all material and incidental transactions, and that to the best of their respective knowledge, remembrance, information and belief, and now especially that they may answer and set forth a full, true and particular account and inventory of all and singular the real and personal estate of said company, in possession. remainder or reversion, including all bills, notes, bonds, mortgages and all other choses in action and effects whatsoever, with the parties' names, amounts, dates and all other material particulars, with the true value of the same respectively, and also a just and true statement and account of all the debts and sums of money due and owing from the said company to any person or persons, state or states, bodies corporate or politic, whatsoever, and that the said defendants may answer and set forth what estate, real and personal, effects, choses in action, goods, chattels, rights, credits, moneys, lands or tenements, the said Morr s canal and banking company, had owned, possessed or had any right, title, or interest, in or to, on the first day of March last past, and whether such company, the directors or officers thereof, or either of them, have since the day last mentioned, sold, conveyed, assigned, paid or transferred, or in any way disposed of to any person or persons, bodies politic and corporate whatsoever, any estate, effects, choses in action, goods, chattels, rights, credits, moneys, lands or tenements of such company, or in and to which such company have or had any right, title or interest whatsoever, and that said defendants may set forth and answer what estate, effects, choses in action, goods, chattels, rights, credits, moneys, lands or tenements such company, the directors or officers thereof, or any or either of them. have sold, assigned, conveyed, transferred, paid or otherwise disposed of since the day last aforesaid, and to whom, when, how or what consideration, and for what purpose, and that the said defendants may answer and set forth all the circumstances under which the aforesaid pretended agreements, bearing date the fourth day of June, eighteen hundred and thirty-eight, and the fourteenth day of July of the same year, one whereof purporting to be made by Stevens T. Mason, governor of the state of Michigan, with the said Morris canal and banking company, and the other purporting to be made between said company and John Norton, jr., fiscal agent of said state, and acting in behalf of governor Mason, with his full power, and the agreement between the said company and Romeyn, hereinbefore set forth,

Digitized by Google

were made and entered into, and upon what consideration, and especially whether it was not directly or indirectly understood or agreed by and between the said company and the said governor of the state of Michigan, or some other person or persons, that the benefits accruing to said Morris canal and banking company, by the alterations of modifications of said original agreement, intended to be made by said supplemental agreement or agreements, were to be shared between said company and said governor of the state of Michigan, or some other person or persons, and who, and also whether the said company have paid or agreed to pay to any person or persons whomsoever, and who, any sum or sums of money as a consideration or inducement for making or procuring to be made on the part of said governor of the state of Michigan, the said two supplemental agreements, or either of them, or forwarding or assisting in relation thereto, and if so, to whom the same was paid or agreed to be paid, and the sum of sums of money so paid or agreed to be paid, and whether any such agreement or understanding was in writing, and that the contents thereof may be set forth, with date, names, sums, parties and all other particulars, and that the said defendants may answer and set forth all and every transaction, dealing and business which the said company, directors or officers thereof, or any and which of them have had with said Stevens T. Mason, since the first day of May, in the year eighteen hundred and thirty-eight, or with any other person or persons on his behalf, or in which the said Mason had any direct or indirect interest, and also that if the said defendants may answer and set forth whether the said company have not neglected or refused to pay its just debts when demanded within the usual and proper hours of business, and whether said company have not stopped payment by neglecting or refusing to redeem their bills, notes or other evidences of debt, in specie or the notes of some other incorporated bank, current in the state of New Jersey, at par value, for want of funds, and also whether the said company have not suspended their ordinary business for want of funds to carry on the same.

And that a writ of injunction may issue out of, and under the seal of this honorable court, to be directed to the said Morris canal and banking company, aforesaid, and all and every of its officers and agents in the state of New Jersey, to restrain them, and every of them, under a penalty therein to be expressed, from exercising any of the privileges or franchises granted by the aforesaid act of incorporation, or the acts supplemental in addition thereto, or amendatory thereof, and from collecting or receiving any debts, and from paying out, selling, assigning or transferring any of the estate, moneys, funds, lands, tenements or effects of the said company, until this hon-

Digitized by Google

orable court shall otherwise order; and also, that this honorable court may appoint a receiver or receivers, or three trustees, with full power and authority to demand, sue for, collect, receive and take into his or their possession, all the goods, chattels, rights and credits, moneys and effects, lands and tenements, books, papers, choses in action, bills, notes and property of every description, belonging to the said company at the time of their insolvency, or suspension of business, as aforesaid, and to sell, convey, or assign all the said real and personal estate, and pay into this court, all the moneys and securities for moneys arising from such sales, or which the said receiver or receivers, or trustees, shall collect or receive by virtue of the authority vested in them, to be disposed of by the said receiver or receivers, or trustees, from time to time, under the order of this court, among the creditors of the said company, first making to the said receiver or receivers, or trustees, such reasonable compensation as your excellency shall deem just and proper, and also deducting the costs of the proceedings in this court.

That the said receiver or receivers, or trustees, may first take and subscribe the oath or affirmation, directed in and by the said act entitled "An act to prevent frauds by incorporated companies," and comply with such other terms as this court may prescribe, and be deemed and taken to be a receiver or receivers, or trustees, for the creditors and stockholders of the said company, with full power and authority, whenever he or they shall deem it proper, to institute suits at law or in equity, in his or their names, as receiver or receivers, or trustees, as aforesaid, and for the recovery of any estate, real or personal, debts, rights in action, damages and demands whatsoever, or whensoever existing, in favor of said company, at the time of its insolvency, or suspension of business, or accruing subsequent thereto, and that the said receiver or receivers, or trustees, may be vested with all other powers and authority given and granted in and by the act last mentioned; that out of the funds of said company, the creditors of said company may be paid proportionably to the amount of their respective debts, except mortgage and judgment creditors, when the judgment has not been by confession, for the purpose of preferring creditors; that the said creditors may be entitled to such distribution in debts not due, making in such case a lawful rebate for interest, when interest is not accruing on the same, and the surplus funds, if any, after the payment of the creditors of said company, and the costs and expenses, as aforesaid, may be distributed and paid to the stockholders, proportionably, according to their respective shares.

That all necessary orders and directions may be given for carrying into full and complete effect, the power, duties and

Digitized by Google

privileges given and granted by the act aforesaid, to prevent frauds by incorporated companies, and that this complainant may have an account taken of the amounts due and owing to the state of Michigan, from the said Morris canal and banking company, and a decree of this court for the payment thereof, and that all sales, conveyances, assignments, transfers, and payments made by the said company of its estates, effects, choses in action, goods, chattels, rights, credits, moneys, lands and tenements, since the first day of March last past, may be set aside, and by a decree of this court, declared inoperative and void; and that this complainant may have such other and further relief in the premises, as to your excellency shall seem meet, and shall be agreeable to equity and good conscience.

May it please your excellency, the premises considered to grant unto this complainant, not only a writ of injunction, as aforesaid, but also a writ or writs of subpœna, issuing out of and under the seal of this honorable court, to be directed to the said the Morris canal and banking company, and to the said Edward R. Biddle, Isaac Gibson and Samuel L. Southard, thereby commanding them, and each of them, to be and appear before your excellency, in this honorable court, on a certain day, and under a certain penalty, therein to be expressed, then and there to answer to all and singular, the premises, and to stand to, perform and abide by such order, direction and decree in the premises, as to your excellency shall seem meet, and shall be agreeable to equity and good conscience.

ASA WHITEHEAD,
Solicitor, and of counsel for complainant.

State of New Jersey, ss:

Robert Stuart, being duly sworn, according to law, on his oath, doth depose and say, that he is treasurer of the state of Michigan, the complainant in the foregoing bill of complaint named; that this deponent has read and understands the said bill of complaint; that the facts, matters and things therein contained and set forth, so far as the same relate to the acts and deeds of this deponent, are true within his own knowledge, and that so far as the same relate to the acts and deeds of any other person or persons, he verily believes the same to be true.

ROBERT STUART.

Sworn and subscribed before me, at Newark, the twenty-third day of October, A. D. 1840.

O. W. KING,
One of the Masters in Chancery of New Jersey.

Digitized by Google

(C.)

Statement of loss accruing to the state of Michigan through sub-agreements, &c., not in accordance with the tenor of the original contract for the five million loan.

First modification.

1838.

June 4. To conform with Mr. Romeyn's contract with the Morris canal and banking company, of same dates, which caused a loss to the state, as follows, viz:

Paid	first	of June,	instead of	first	May,	$250,000	1	month at	6	per cent,	$1,250 00
"	"	August,	"	"	"	250,000	3	"	"	"	3,750 00
"	"	September,	"	"	"	100,000	4	"	"	"	2,000 00
"	"	October,	"	"	"	100,000	5	"	"	"	2,500 00
"	"	November,	"	"	"	100,000	6	"	"	"	3,000 00
"	"	December,	"	"	"	100,000	7	"	"	"	3,500 00
"	"	January, 1839,	"	"	"	100,000	8	"	"	"	4,000 00
"	"	February, "	"	"	"	100,000	9	"	"	"	4,500 00
"	"	March, "	"	"	"	100,000	10	"	"	"	5,000 00
"	"	April, "	"	"	"	100,000	11	"	"	"	5,500 00
						$1,300,000					

Carried forward, $35,000 00

Digitized by Google

Brought forward,		$35,000 00
Second modification.		
1838.		
July 4. John Norton, jr., allowed a further modification, so as to lose three months' interest on $1,050,000, at 6 per cent,		15,750 00
		$50,750 00
Third modification.		
See correspondence of Governor Mason and Morris canal company, December 10 and 11, house documents, 1839, pages 713 to 717, by which ½ per cent on thirty days' interest is claimed on the $4.194,250, and $3,918 75 actually retained on the third instalment of July and October, 1839, and January, 1840,		20,971 25
Difference on advance of interest between first and last contract, per statement of auditor general, in his report of 14th December, 1839, pages 272 and 273,		34.436 88
		106,258 13
Interest lost to Michigan, by premature retention of commission by Morris canal and banking company, say on 1st June, instead of retaining it as the several instalments became due, according to original agreement,	$125,000 00	
Less amount due on 1st June, 1838, on $1,300,000,	32,500 00	
	$92,500 00	
Interest on $92,500 00, from 1st June, 1838, to 1st June, 1843, at 6 per cent, being time of last payment, by agreement, equal to four years and seven months,	25,467 50	
Carried forward,	$25,467 50	$106,258 13

Digitized by Google

Brought forward,				$25,467 50	$106,258 13
Less interest which should accrue to the Morris canal on the several instalments, viz:					
Interest on com. of 2½ per cent, on $250,000 due 1st January, 1843, say 3 years and 6 months, on $6,250,				1,312 50	
" "	$6,250	from	1st October, 1839, to 1st January, 1843, 3 years 3 months,	1,218 75	
" "	6,250	"	1st January, 1840, to 1st January, 1843, 3 years,	1,125 00	
" "	6,250	"	1st April, 1840, to 1st January, 1843, 2 years 9 months,	1,031 25	
" "	6,250	"	1st July, 1840, to 1st January, 1843, 2 years 6 months,	937 50	
" "	6,250	"	1st October, 1840, to 1st January, 1843, 2 years 3 months,	843 75	
" "	6,250	"	1st January, 1841, to 1st January, 1843, 2 years,	750 00	
" "	6,250	"	1st April, 1841, to 1st January, 1843, 1 year 9 months,	656 25	
" "	6,250	"	1st July, 1841, to 1st January, 1843, 1 year 6 months,	562 50	
" "	6,250	"	1st October, 1841, to 1st January, 1843, 1 year 3 months,	468 75	
" "	6,250	"	1st January, 1842, to 1st January, 1843, 1 year,	375 00	
" "	6,250	"	1st April, 1842, to 1st January, 1843, 9 months,	281 25	
" "	6,250	"	1st July, 1842, to 1st January, 1843, 6 months,	187 50	
" "	6,250	"	1st October, 1842, to 1st January, 1843, 3 months,	93 75	
" "	5,000	"	1st January, 1843,		
	$92,500			$15,523 75	
Total loss to Michigan by changes from first agreement,					$121,881 88

N. B. To the above will have to be added so much of the $125,000, commission retained, as to cover whatever part of the debt the Morris canal company *may* fail to pay. By reference to the auditor general's report of 1839, pages 278–9, it will be seen that the state, for a considerable period of time, loses the use of $494,250, which it advanced in interest, contrary to the tenor of the first agreement.

Digitized by Google

[No. 9.]

Report of the Superintendent of public instruction,

OFFICE SUPERINTENDENT OF PUBLIC INSTRUCTION,
Marshall, December 30, 1841.

To the legislature to be convened at Detroit, on the first Monday of January, 1841:

The superintendent of public instruction, pursuant to the requirements of law, has the honor to submit the following report:

The present being the fifth annual communication of the undersigned, and as the term for which he was last appointed is about to expire, it may not be deemed unsuitable, while reviewing the past, to suggest some things in regard to the future.

The constitution of Michigan was formed and adopted in 1835, and the state government fully organized under it, in 1836. This noble instrument lays a broad and permanent foundation for the instruction of all classes within the limits of this commonwealth. Our school system, which provides for the establishment of primary schools in every township, and a university, with a convenient number of branches, is based upon it.

The object is the instruction, the enlightenment, the culture, the elevation of the entire mass of the community. Most certainly, it is an enterprise worthy the highest consideration of an enlightened government; and in the prosecution and promotion of which, all hearts and hands may engage and efficiently co-operate.

We must multiply our school houses, educate teachers, furnish books, procure libraries, and provide, indeed, all the necessary means of instruction for the whole population; or increase greatly the number of our jails, penitentiaries, and standing armies; and then there be no peace or security to him who goes out or comes in. We must educate, or forge bars, bolts and chains. One system or the other, we must adopt—there is and there can be no alternative. Besides the experience of all the past—of all ages and nations, demonstrates that it is more economical, much less expensive, to educate the young and form them to high moral principle and honorable conduct, than to support paupers, restrain, imprison and punish aged criminals.

Besides, what a waste of mind, of intellectual and moral power, to suffer large masses of people to grow up, ignorant of themselves, of their Creator, of their destiny, of all that is noble and praise-worthy in a rational immortal existence. No matter when we look, or where we look, man, without education, is degraded, is a slave, and rises but little in this life above

Digitized by Google

many of the lower creation. What were the living masses that followed Xerxes, or Tamerlane, or Brennus, or Attila? They were human beings, but what did they know of their rights as men? Of their powers, obligations and duties, as free moral agents? In all those moving masses, and in multitudes of others in by-gone ages, there was little else than mere physical force. Hence they became, as they were fit for nothing else, the mere instruments of existing despotisms. They could kill, they could destroy; but they were not capable of leaving any other trace of their existence. What a waste of intellect—what degradation—what poverty—what wretchedness!

If the people of Michigan, instead of bequeathing to their children the noble inheritance, derived from a high-minded intelligent, educated, moral and religious ancestry, wish to see them cast down from that proud elevation on which they have stood, and become ignorant, debased and poverty-stricken, the dupes of a selfish priesthood, or the serfs of an avaricious oligarchy, or the fit instruments of an ambitious military despotism, they have only to dismiss their teachers, burn up their books and school houses, and abrogate all laws for the support of schools, and, in a few short years, the work is done.

As a state, we are but of yesterday; and on the day of our coming into being, we were thrown entirely upon our own resources and energies. We inherited no richly endowed establishments or time honored institutions; all was to be formed, to be created anew. Besides paying a high price for our lands, we were obliged to build us houses, make roads, and do all else necessary to provide the means of subsistence. True, indeed, congress, evidently for the purpose of selling the balance, reserved from sale and granted to the state a certain amount of wild land for the support of schools. But whence its value? Inherently it has none, any more than the immense tracts of plain and forest adjoining the Rocky mountains. It is solely our capital—*our labor*, expended in the cultivation of the soil—in the general improvement of the country—in the formation of republican institutions, and the support of government, which has given to that land, all its present value. Furthermore, the circumstances of the times have been exceedingly adverse. We commenced our career when the whole country was in the midst of the wildest scene of speculation, and have seen it sunk, in three short years, to the lowest state of depression.

Howbeit, for the time, much has been done towards promoting the great cause of education within our borders; more, indeed, than could have been expected. But though much has been achieved, much remains to be accomplished; and having put our hand to the plough, we cannot go back if we would.

Digitized by Google

If children, as is generally conceded, belong to the republic, then it is obviously the duty of the state to see to it that they are properly trained, instructed, educated. If so, then the property of the state ought to be held responsible for their education. They must either be qualified to take care of themselves, to procure, by their own labor, the means of subsistence, or the state must provide for them. This the state must do, if they cannot provide for themselves. But how can they do this, unless properly instructed in early life? In a pecuniary point of view, it is much cheaper to educate the young, than to support multitudes of paupers and an increased number of criminals. What a saving it would soon be to the British empire, were her pauper system exchanged for a system of primary school instruction, that should carry the blessings of education to every child in the kingdom. Few, indeed, are the men that have ever become paupers or criminals, who, in early life, were brought within the reach and under the salutary influence of schools, books and teachers. It follows, therefore, that the property of the state ought to be held liable for the education of all within its borders, and on this principle every school system should be based.

As already intimated, much has been done; and it is perfectly obvious that the people of the state are determined upon the education of their children. This appears from their conduct. No sooner is a settlement formed, than a district is organized, and a school commenced. The reports of the present and last year, show that large sums have been voluntarily raised for the erection of school houses. True, many of them are built of logs, and might be taken by an unreflecting passer-by from some of our large and wealthy cities, as evidence that little or no interest was felt on the subject of schools; but it is to be remembered, that these buildings, though rude they may be, are as good as the circumstances of a people in their infancy will allow—good, indeed, as their own dwellings. Though such school houses might justly be considered a disgrace to a long established and wealthy community, they nevertheless entitle the newly formed settlements of our country to the highest commendation. They betoken a zeal worthy of all praise. Where did the primary schools of New England, whose system of instruction is now her pride and her boast, commence? In the rude cabins of our pilgrim fathers. Had they begun otherwise, though themselves educated, darkness would soon have settled down upon her hills, her mountains and her valleys, and gross darkness, long ere this, covered her people.

So with respect to ourselves as a state. The present population are generally well educated; but how will it be with those who are immediately to take our places? who are soon

Digitized by Google

to succeed us in all the departments and responsibilities of life? Will they be fitted, intellectually and morally, for their respective stations? In regard to them, there is danger, owing to the peculiar circumstances and embarrassments of those who are now intrusted with their education. True, a good beginning has been made, but unexpected difficulties have arisen. These must be met and overcome, or we are thrown back in our own course, time only can tell how long. Should there be any relaxation of efforts, any suspension in the course of instruction, who can calculate the loss, or assess the amount of damages, to those immediately concerned? Should a suspension, for a few short years, be urged for the purpose of providing the means of renewing the course with vigor, let it be borne in mind, that these few short years will suffice to bring the next generation upon the stage of life uneducated. Easy and short too, in this case, would be the descent to ruin; but to return, would require the labor and toil of many years. It depends solely upon us, upon our action at the present time, whether a race of men are to come after us, and occupy our seats, well qualified for a faithful discharge of the high trust which shall be committed to them, or be ignorant, debased and degraded.

Having taken high ground, it is of the utmost importance to maintain it. Patriotism, duty, humanity, our good name, and especially a due regard to the best interests of a rising race, and the perpetuity of our free institutions, all urge us onward. We have already gained a reputation, which it highly concerns us to preserve unsullied. The following highly complimentary notice of our educational plans and proceedings, is to be found in the "Introductory essay to the school library, published under the sanction of the board of education of the state of Massachusetts." It says, "the young state of Michigan, which is pressing forward with such a vigorous march towards greatness, has secured the education of all her children by the provision of her fundamental law. The tenth article of the constitution of this state, directs the organization of a department of education, and appropriates the necessary funds. The fourth section of this article provides for the establishment of libraries. The legislature, with a praiseworthy promptness, have already, in the primary school law, made the provision enjoined upon them in the constitution." However much we may have suffered in our credit, in a pecuniary point of view, if we can so move forward the great business of education, as to preserve our rank and character, which we have already gained, it will enable us, within a few short years, not only to regain all that we have lost, but to advance in our career of improvement more rapidly than any new state has ever yet done. If "education is the chief of our responsibilities," then duty forbids any cessation of efforts; and if

Digitized by Google

"knowledge is power," then the furnishing the means of knowledge to the great mass of the people, is the surest way of enabling them to triumph over all difficulties.

By reference to the last page of reports of school inspectors, it will be seen that the Elementary spelling book is used in 548 districts out of 626. The balance of the districts, 880, make no report of the kind of books used in their respective districts, but simply remark that the books in common use are studied. If the Elementary spelling book is used in the same proportion in these districts as in the others, it is used in about 1,335 out of 1,506 districts.

Out of 632 districts, Daboll's arithmetic is used in 304. Though this book may be correct in the main, yet the principle on which it is constructed is such that its use has little or no tendency to exercise and strengthen the reasoning powers of the youthful mind. Instead of developing the first principles on which the science of numbers is based, and which are of essential importance to be acquired, its teaching is merely mechanical. It lays down rules, and directs the pupil to solve his questions by a mere application of those rules, instead of so directing him as that he shall be able to institute a process of reasoning and know intuitively and certainly, when he is done, that his problems are correctly solved. This mode of instruction throws the young upon their own resources; gives them confidence in themselves; calls into exercise their thinking faculties; hence, whenever in the course of business, a question presents itself, independent of books and teachers, immediately a process of reasoning is instituted, and the answer obtained. Not so where the opposite mode of teaching is adopted. The youth who has been taught to solve questions by the mere application of rules, is forever after, dependent on his book and his rules. Whenever, therefore, in subsequent life, a question arises, the first thing for him to ascertain is, under what rule does this question come? If he *guesses* right—and certainly he has nothing else to depend on in this case but a mere *guess*—and has not forgotten any part of his rule, and proceeds in the operation according to the rule, he may find the true result; but he has no intuitive satisfactory evidence, as he proceeds step by step to this result, that it is indeed the true one. The difference between these two methods of instruction, and their respective fruits, is as great as the difference between merely committing to memory and reciting, parrot-like, a mathematical demonstration, and understanding the proposition itself, and each step in the process of that demonstration. A young man who has studied thoroughly Colburn's first lessons, or some other mental arithmetic of the same extent, has a better knowledge of the science of numbers, and is better qualified to enter upon the active duties of life, than

Digitized by Google

those who have spent years in wading through large volumes, constructed on the principle of teaching arithmetic by the mere application of rules. Principles once acquired, become a part of our existence—and may be called into service whenever needed—while mere rules, without a knowledge of the reasons on which they are founded, are a perpetual tax upon the memory, and are liable to be forgotten.

It appears, also, that Kirkham's grammar is used more extensively than any other in our schools. This is both matter of surprise and regret to the undersigned. In the hands of a critical and skillful teacher it can do no harm; but in the hands of those who depend almost entirely on the authority of the book used, it is quite as likely to do harm as good. It is a puerile production—filled with error—and written in the true style of sophomorical bombast and egotism. A few specimens, from a multitude that might be selected will suffice to show the character of this work. Under the head of classification it is said "the part of speech to which any word belongs, is ascertained, not by the original signification of that word, but by its present *manner* of meaning. The painter dips his *paint* brush in *paint* to *paint* the carriage, and yet the meaning of the word is the same in all these applications." Now it is believed, that any child, who has seen the painter dip his *paint* brush in *paint*, to *paint* the carriage, * * * * * * knows that this is not correct. *Paint*, in the first place, expresses the kind of brush used—in the second, it is the name of the mixture applied, and in the third, it represents the action of the painter in applying that mixture. And yet, our children are taught that "the word has the same meaning in all these applications." Take another example. "*The rain rains rain.*" This is given as a parsing lesson, and is probably intended as an explanation of the phrase—*it rains*. *It*, in this case, obviously refers to that combination of causes, which produce both the action and the effect—the raining and the rain. But to say that the rain rains rain, is as unphilosophical and false in fact, as can well be imagined. It is evidently confounding cause and effect, and making the creature the creator of itself. We have in the expression, the name of an agent, the action of that agent, and the effect of that action—and what is it but the production of the agent itself? As well, and as wisely, might the author have added—*the smoke smokes smoke—the lightning lightens lightning*. Most certainly such teaching is worse than useless. Again his book teaches us, "*a* or *an* is always *indefinite, vague, indeterminate, not definite, limits the noun to one of a kind, but to no particular one.*" A few plain cases will test the accuracy of this teaching. "And he lodged in the house of one Simon, *a* tanner." According to the rule, *a* limits the noun to one of the kind, but to no particular one; whereas it is perfectly

Digitized by Google

obvious that *tanner* and *Simon* mean the same person. "But Solomon built him a house." In this case, the connection makes it as clear as day light itself, that both speaker and hearers had a clear, distinct and definite idea of the house intended. "*A house*"—not any, one of the kind—but the temple. This phrase is no more determinate in its meaning than the other. "I will be *a* God to thee and to thy seed after thee." According to the rule, it is wholly uncertain what God is meant! any one of the kind—because the *a* limits the noun to no particular one. *A* decisive battle was fought near the close of the last war at New Orleans—*a* decisive victory was gained by Perry on Lake Erie. According to the rule, it is altogether uncertain what battle and victory are referred to in the above passages. What nonsense an ignoramus can make of our language! and yet such books are extensively used in the primary schools! But such is the fate of all mere copyists—they transcribe blunders and all.

Few districts have as yet taken advantage of the provision of the law in regard to the establishment and support of libraries. In some of the eastern states great exertions are making for the introduction of libraries into all the districts of their respective states. It is to be hoped that the time is not far distant, when a library will be established and kept up in every school district within our borders.

To aid in this enterprise, "the common school library," published by the Messrs. Harpers, of New York, consisting of three series, has been offered to the public. Of it, the Cultivator says: "the school district library now embraces about one hundred and fifty volumes, and forms one of the most valuable collection of books to be found in any country. They are beautifully bound in cloth, and there are few libraries indeed, to which they would not prove a valuable addition. The average price of the volumes, are but about thirty-eight cents each. The first series was deficient in works relating to the most important branch of industry in this country, agriculture—a deficiency supplied in the second series. A large proportion of the last series has been written expressly for it."

To aid, also, in carrying forward this same grand enterprize, another collection, of two series of fifty volumes each, is in progress of publication, "by Marsh, Capen, Lyon & Webb, of Boston." It is denominated "THE SCHOOL LIBRARY," and has the advantage of being "*published under the sanction of the board of education of the state of Massachusetts.*" The plan embraces every department of literature and science. The intention is to provide information for all classes—for the farmer, the merchant, the manufacturer, the mechanic, the laborer; and the best talent of our country has been engaged in preparing the several volumes of which the library is composed;

Digitized by Google

and no volume is accepted until it is approved by each individual member of the board. Coming out under such auspices, *the school library* cannot fail of securing public confidence and patronage. It cannot be otherwise than received with universal approbation. The volumes already published, are both neatly and elegantly executed. They present fairness of type—a fine quality of paper, with a beautiful finish. The cost of both series is a little less than sixty dollars.

What district so poor as not to be able, in the course of from one to five years, to supply itself with such a library? How verdant the foliage, how rich the ripening fruit? If, in any manner, instrumental in preparing the way for the introduction of such a library—as either of the foregoing—into the several school districts of the state, the superintendent will retire, at the expiration of his term of service, with the high satisfaction, the proud consciousness of having contributed something that shall ultimately be of essential benefit to a new and rising race. It is believed, that when the attention of the people is once called to the subject, they cannot fail to act.

Within the past five years, a system of public instruction has been devised, put in operation, and is now in "the full tide of successful experiment." The work of organization is still progressing. Though difficulties may have arisen, and may impede, yet the march will be onward. It is within the recollection of many now living, that when the present admirable school system of the great and powerful state of New York, was first commenced, from three to five cents per scholar was all that could be distributed from her literature fund; and this, in some townships, from a misapprehension of the true meaning and intent of the law, was divided among the inhabitants themselves. No system in the Union, with the exception of that in the state of Massachusetts, is now more complete in its organization and perfect in all its parts.

		Townships.		Districts.	Number.	
In the fall of	1836,	39	rep'ted	55	2,337	of legal age.
do	1837,	109	"	382	15,441	do
do	1838,	245	"	1,020	34,000	do
do	1839,	302	"	1,325	45,892	do
do	1840,	324	"	1,506	49,850	do

The school law begins to be more generally and better understood than heretofore. Fewer questions of difficult solution have arisen the past year than during any former period.

In regard to the university and its branches, the superintendent, in this his last communication, cannot refrain from expressing his deep conviction of the importance of this part of our system. It is deemed all important that the branches be sustained. The parent institution cannot succeed without them. Its main dependence for a regular supply of students from year

Digitized by Google

to year, must be upon the branches. Private institutions will not furnish them—these will, generally speaking, give their pupils a different direction. It is equally important, so far as the primary schools are concerned, that the branches should flourish. We can look to no other source for educated, well qualified and competent teachers. Without these, the primary schools cannot accomplish what is and ought to be expected of them. But without further aid than can be derived from the proceeds of the university fund, the branches, it is feared, must languish. It is, therefore, respectfully submitted that the lands granted to the state in connection with the salt springs, be appropriated for the support of said branches.

The subjoined is the list of documents appended to this report:

A. Reports of school inspectors.

B. School lands sold the last year.

C. University lands sold the past year.

D. University lands selected, and their location.

E. School lands selected in lieu of section sixteen, and their location.

F. Description of lands sold in each township, amount paid and still due.

G. Classification of purchasers of university and school lands.

H. apportionment table.

Then follows the report of the regents of the university, a document of great interest and importance.

For the purpose of showing the condition of this department in all its branches, the above tables and documents, from A to H, have been prepared with much care, and have required in their construction, no small amount of labor. The design has been to furnish all the information, contemplated by a resolution of the house of representatives, passed near the close of the last session, and prepare the way for a final adjustment of all accounts.

Document F, entitled "classification of purchasers of university and school lands," presents at one view the number of those, who have already forfeited in law, their respective contracts. Many of them appear to have come to the conclusion to make no further payments, unless the price is reduced. That the minimum price of the unsold lands is too high, there can scarcely remain a doubt. Time, which corrects opinions, has shown that five dollars per acre for school lands, and fifteen for university lands, is as high as they can be expected to sell. At five dollars the acre, a sufficient quantity of school lands would soon sell, to furnish, it is thought, an income of from $20,000 to $30,000. If the minimum price of the university lands should range from ten to fifteen dollars per acre, and should sell, it would produce a fund of about $500,000. Five

Digitized by Google

dollars for the school and fifteen for the university lands were the minimum prices first proposed.

A reduction is also asked on lands before sold. Many of them, in the beginning, were sold so high that the purchasers will not be likely to fulfill their contracts. Though some have made extensive improvements, yet they will be obliged to forfeit. It will probably be found difficult to adopt any rule, that will operate equally. Some purchasers have paid no more than what their lands are actually worth. Such would not forfeit under any circumstances—while others find it to be to their interest to give up their lands. There must hence be discrimination, or injustice will be done to the university or school fund, as the case may be. Many of those who purchased in 1837 and 1838, made but one payment, and consequently forfeited their contracts long ago. These have never thought of asking for relief. It is true there are some of this class who bought in those years, that have made large improvements, and paid their interest, till the past year. Such ought not to be excluded from the operation of any law, passed for the benefit of purchasers.

These suggestions are made, not with a view of opposing the proposed measure, but to present the difficulties, which surround the question of reduction, so far as lands already sold are concerned. The legislature in its wisdom may devise a plan that shall do justice to the purchasers, and at the same time preserve inviolate those sacred trusts committed to its care. That a reduction, in many cases, would be both equitable and just, there can be no question.

By an examination of documents marked D, and E, it will be seen what lands have been selected and confirmed to the state for the use and benefit of the university and what have been selected in lieu of section sixteen, for the primary schools. These tables have been procured by an application of this department to the commissioner of the general land office at Washington. It appears by the first named table, that seventy-one and a half sections have been confirmed to the state for the university—there remains hence, three and a half sections to be located. Though in one or two cases, there may have been a loss of several acres by the acceptance, on the part of the former trustees of the university, of fractional sections in lieu of whole ones, yet it will be found on examination of the number of acres in each section, that the state have suffered no loss on the whole. 71½ sections are equal to 45,760 acres. The 71½ sections located, contain in the aggregate a fraction over this number of acres. Most of these lands, it will be observed, are west of the principal meridian.

The commissioners, appointed under the act, approved March 25, 1840, returned to this office as subject to sale on their ap-

Digitized by Google

praisement, 602,771 acres; of this amount, 474,302 acres have been taken by the settlers, at an average price of $6,212.

Lands have been offered for sale, the past year, at public auction, in thirteen different counties.

University Fund.

Of the university lands, 43 70-100 acres have been sold the past year, at an average price of $24 96 per acre, amounting to		$1,090 80
Also, 4,743 12-100 acres of appraised university lands, at an average of $6 21 per acre, amounting to		29,467 15
		$30,557 95
Received on account of the ten per cent,	$3,060 79	
Received on account of lands previously sold, being instalments,	5 00	
Amount of principal received,	$3,065 79	
Received from purchasers on ac't of interest,	763 61	
Total amount of principal and interest received,		$3,829 40

There will be due and payable on the first Monday of March next, on account of moneys loaned, about $2,750.

School Fund.

Of the school lands, 1,242 acres have been sold, at an average price of $8 per acre, amounting to	$9,936 00
And also, 295 14-100 acres forfeited and resold, at an average of $13 93 per acre, amounting to	4,111 00
	$14,047 00
Received on account of the ten per cent,	1,404 70
Received on account of lands previously sold, being instalments,	2,139 08
	$3,543 78
Received from purchasers on account of interest,	5,697 68
Total amount of principal and interest,	$9,241 46
Add university principal and interest,	3,829 40
	$13,070 86

There will be due and payable on the first Mon-

Digitized by Google

day of March next, on account of moneys loaned, about $5,000.

Disbursements as follows.

Due as per last report,	$2,236 02	
Clerk hire,	500 00	
Postage,	76 60	
Printing 2,500 copies school laws, 1839,	130 00	
pamphlet for regents, 1837,	95 50	
blanks,	89 00	
Advertising,	127 90	
Costs of suit with trespassers on school lands,	24 47	
Expenses selling lands at auction in 13 counties,	142 33	
Expenses selling university appraised lands,	38 37	
Uncurrent money,	25 00	
		$3,485 19

Sum total of receipts and disbursements from the commencement of sales.

Receipts—School Fund.

Principal,	$87,296 37	
Interest of purchasers,	41,163 26	
Interest on loans,	6,832 71	
notes,	356 50	
		$135,648 84

University Fund.

Principal,	$29,202 20	
Former trustees,	5,000 00	
Use of lands,	150 00	
Interest of purchasers,	12,404 94	
Interest on loans,	3,933 00	
		50,690 14
		$186,338 98

Disbursements.

Loans, &c.,	$117,860 45
Apportioned to schools,	42,863 82
Paid university,	16,029 04
Balance of principal on hand,	3,124 38
Balance of university interest on hand,	763 61
Balance of school interest on hand,	5,697 68
	$186,338 98

All which is respectfully submitted.

JOHN D. PIERCE,
Superintendent Public Instruction.

Digitized by Google

(A.)

Report of School Inspectors—Allegan.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher in each.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Allegan,	5	1	1	70	7	77	3½ m'ths.	$32 00	$10 00	$475 90	Teacher, $115; school house, $350.
Newark,	3	1	3	9		10	3			408 00	Purpose not reported.
Otsego,	5	3	1	29		43	5	10 80			
			2	42	18	60	7	10 00		30 00	Stove pipe and bucket.
			3	19	3	26	4			21 00	Support of school.
Plainfield,	10	5	1	28	1	23	4½	23 86			
			2	19		20	3	11 31			
			4	28	1	52	7	17 75		62 72	do
			5	10	2	12	3	8 81		60 00	Purpose not reported.
			6	14	1	14	3½	16 62	10 00	15 00	Repairing house.
					Branch County.						
Algansee,	12	5	1	22	5	27	3				
			3	42	8	50	7				
			6	26	2	22	3				
			7	13	4	17	3				
			12	24	14	38	3				Support of school.
Batavia,	5	4	1	30	14	44	3	5 09		12 00	do
			2	42	7	40	6	25 90		20 00	
			3	47	6	40	6	14 40		29 00	

Digitized by Google

Bethel,		4	2	6	38	1	38	5		13	96			
				1	38		20	3		9	60			
				4	28			1st report.						
Butler,		5	4	1	26	1	41	9 months.		15	00			
				2	29	5	27	3		6	00			
	frac.			5	6	7		4					29	79 School house.
				3	19			1st report.					70	00 do
Gilead,		3	2	1	42	3	32	5 months.		12	60		35	00 Support of school.
				2	41	1	37	3		19	20			
Coldwater,		11	8	1	52	10	75	5		26	00			
				2	9	5	22	7 weeks.		8	00	no app't.	400	00 Build school house.
				3	25	7	32	3 months.		12	80		150	00 do
				5	5	9	6	6						
				8	20	2	12	3		8	40		8	10 Support school.
				9	4		3	3		4	00			
				10	20			1st report.						
				11	23		85	5 months.		27	20		227	00 Build school house.
Girard,		8	7	1	41	17	65	9		17	00		48	00 Support school.
				3	23		20	3		7	00			
				4	25	6	37	3		12	44			
				5	16	2	19	6		8	00			
				6	16	no app't.								
				7	29	2	31	3		4	00			
				8	8		39	5						
Mattison,		3	1	2	47		34	6		10	00		19	54 do
Ovid,		5	4	1	17	3	15	3		8	00			
				2	15	8	23	3		7	60			
				3	15	5	25	3		7	20			
				5	13	3	15	3		4	40			
Bronson,		9	3	2	46		30	3						
				3	51	12	63	7		49	30			
				5	16	4	24	4					28	59 Repairing school house.
Quincy,		5	4	1	37	5	45	7		12	50		33	90
				2	44	13	57	6					70	97
				3	50			3						
				5	23	4	23	4					132	98 Build school house.
Sherwood,		4	4	1	27	8	35	6		26	16			
				2	45	6	37	7		31	78			
				3	21		17	8						

Digitized by Google

Branch County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Sherwood,			4	31		13	3 months.	$8 50			
Union,	7	5	2	58	8	55	9	24 86		$25 00	Repairs.
			3	23	3	36	6	6 20			
			5	17	3	19	3	18 08			
			6	10	4	13	3	13 69			
			7	25	2	36	4	9 00		300 00	To build school house.
					Barry County.						
Johnstown,	5	4	1	17	3	18	5 months.	11 88			
			2	4		6	3				
			3		no app't.						
			4	11		8	4				
Barry,	3	3	13	25	5	30	6	8 00		65 00	Support School.
			14	24	6	30	4½	11 87		40 00	do
			5	22	7	29	6	14 64		48 08	do
Hastings,	5	4	1		no app't.						
			2	11	3	13	3	2 80			
			3	6	1	7	4	2 00			
			4	12			1st report.			168 00	To build school house.
Yankee Springs,	5	2	3	23	4	31	6½	10 60		68 00	Support school.
			4		no app't.						
Thorn Apple,	4	1	1	21	2	23	5	8 00			

Digitized by Google

Berrien County.

Bertrand,		6	6	2	97	5	70	6 months.	86	71		49	24	Support school.
				3	23	1	24	1½ 1st rp.	88	29		174	51	Build school house.
				4	52	2	60	6 mos.	50	37		42	63	Support school.
				5	41	10	51	3	47	74		61	69	do
				6	45	6	36	5				63	00	do
				8	25	9	30	6	47	00		36	00	do
Bainbridge,		5	3	1	17	2	19	3	6	40				
				4	14	10	20	3						
				5	17			1st report.				100	00	Build house.
Berrien,		6	3	1	32	3	48	8½	23	22	$10 00	390	00	To build school house.
				3	33	8	30	3	20	37		12	65	Support school.
				4	23	5	25	3						
Buchanan,		4	3	1	28	7	35	6	26	00		38	25	Support school.
				2	14		13	3	11	30		5	45	do
	frac.			3	15	1	24	1½ 1st rep.	8	29		174	51	Build school house.
Niles,		8	4	1	150		75	8	87	50		115	00	Repairing house and sup'rt school.
				3	29	24	28	3	14	84		51	16	do
				5	50	12	54	3				183	00	To build school house.
				6	41	3	37	3	18	35		26	66	Support school.
New Buffalo,		6	2	1	19		24	3						
				6	10	2	14	3	8	05				
Oronoko,		2	1	1	30		32	8½	28	20	10 00	390	00	Build house.
St. Joseph,			2	1	89	90	75	6	93	46		148	40	Support school.
				4	13	3	16	3	14	00				
Weesaw,		6	2	2	18	2	20	3	13	16				
				6	15	2	14	3	8	00				

Clinton County.

Bingham,		3	3	1	18	2	20	7 mos.				40	00	Support school.
				2	15	3	18	3				18	00	do
	frac.			3	9		9	1st rep.						
DeWitt,	frac.	7	8	5	39	12	52	5 mos.	20	00		175	50	Build house and support school.
	frac.			7	22	4	26	8	7	50				
Ovid,		4	1	4	9	3	12	5				75	00	Build house and support school.
Sena,		1	1	1	35	4	39	10	8	50				
Ossowa,		4	2	1	12	4	8	3				50	00	Build house.
				3	11	10	21	3				71	00	do

Digitized by Google

Clinton County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Watertown,	7	3	5	67	19	86	3 months.	$15 60		$66 68	Support school.
			7	17	3	20	3			450 00	Build school house.
frac.			3	3			1st report.				

Cass County.

Calvin,	4	2	1	34	11	44	6 months.	16 98		122 07	Building school house and library.
			3	9	1	14	3	3 82			
Howard,	7	2	1	22	10	32	3	41 39			
			5	26	3	29	3	13 79		15 00	Support schools.
Jefferson,	4	3	1	65	10	52	3	37 12		21 25	do
			2	26			1st report.				
			4	51	7	58	6	57 43		26 57	Support schools.
Legrange,	7	6	1	71	12	75	5	30 00		100 00	do
			3	50		47	6	21 60		41 69	do
			4	44	6	45	3	20 00		240 00	Building school house.
			5	19		19	6				
			6	24		47	9			111 00	Support school.
			7	12			3			24 00	do
Milton,	7	3	2	19		25	3			18 00	do
			6	42		41	3	16 16			
			7	44	3	47	5¼	17 40		27 25	Support school.
Mason,	3	3	1	44	4	48	6	22 00		43 00	do
			2	48	6	54	6	25 00		35 00	do
			3	21	2	23	7	20 00		28 00	do

Digitized by Google

Newburg,	frac.	2	2	6	23	6	29	7	13	44		125 00	Build school house.
Ontwa,		5	3	1	39	5	43	3½	16	96		62 00	Support school.
				2	33	6	38	5	25	60			
				2	82	3	72	9	89	04	$10 00	120 00	do
				5	20		16	7	18	56		28 00	do
Porter,		7	2	1	57	18	79	9	66	20		130 00	Finishing school house.
				3	41	3	43	6	47	53		16 34	Support school.
Penn,		3	2	1	40	10	36	3½	28	49		49 50	do
				3	57	10	50	3	23	11		52 00	do
Pokagon,	frac.	7	5	5	3		3	6					
				1	20	3	20	3				13 00	Support school.
				4	40	4	44	3	20	00			
				5	30	11	41	8½	18	00		120 75	Building school house.
				7	28	11	36	3				36 00	Support school.
Silver Creek,		5	1	1	46	1	32	8	11	60			
Volinia,		4	4	1	43	10	49	4	43	68		79 32	Support school.
				2	43	4	32	5	44	48		75 00	Finishing school house.
				3	51		14	3					
				4	8			1st report.					
Wayne,		9	1	6	33	2	46	4	27	00			

Calhoun County.

Bedford,		6	4	1	9	16	34	9	4	80		89 34	Support school.
	frac.			3	14	3	15	3¾					
				5	9	1	10	6	2	80			
	frac.			6	4	1	9	3	1	60			
LeRoy,		9	5	1	38	10	45	6	18	00		113 75	Removing house and sup't school.
				2	12	2	10	3	5	75		12 00	Support school.
				4	19			1st report.					
				3	22	7	47	7	7	27	3 00	10 00	do
				7	13			1st report.				200 00	Build school house.
Athens,		2	2	1	22	7	29	6	38	35	2 99	19 60	Support school.
				2	20	12	13	3	18	00		28 00	do
Penfield,		8	6	2	4		38	7	15	00		104 55	do
				3	25	5	30	3	11	06		64 00	do
				4	4	1	5	3				62 00	do
	frac.			5	16	9	42	7	31	52	3 02	62 00	Stove and fixtures.
				7	20	3	41	8	7	20		53 00	
	frac.			12	9	16	34	9	8	16		89 34	

Digitized by Google

Calhoun County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Newton,	6	3	1	13	3	21	3 months.	$18 86			
frac.			2 & 3	15	1	15	3	4 50		$23 88	Support school.
			4	6		24	4	8 00			
Burlington,	7	5	1	33		44	4	36 30		34 00	Support school.
			2	21	5	26	6	28 09		17 91	do
			3	21	5	31	3	16 27			
			5	32	2	34	3	25 45			
			7	4	3	19	7½	2 27		6 51	do
Convis,	4	8	1	23		19	3				
			4	25		14	5	13 84		12 16	do
			5	25	5		3	18 00			
Marshall,	8	7	1	135	36	118	9	110 00	$9 00	456 46	House and lot.
			2	154			6	115 80	8 87	135 57	Repairs and support school.
			4	35	8	55	9	48 18		42 14	do do
frac.			5	12	5		3	11 98			
			6	21		27	7	16 72		49 73	Support school.
frac.			7	30	8	38	8½	26 00		10 00	Repairing school house.
			8	3		3	4	17 07		8 00	Support of school.
Fredonia,	8	5	1	23	9	32	4	19 09		65 00	do
			2	11			1st report.				
			4	8		24	4 mos.	17 07		8 00	do
			5	20	1	17	1st report.			143 00	Build school house.
			8	7		7	3			20 00	Repairs and stove.
Tekonsha,	6	4	1	34	8	8		20 29			
			2	26	3	45	4				

Digitized by Google

Marengo,		8	7	4	25	15	86	8	25	29		24	39	Support school and repairs.
				3	15	3	21	8	21	73	8 68	35	50	do
				1	42	6	33	4	40	50		104	36	Build house and support school.
				2	34	9	43	10	35	64		61	13	Support school.
				3	42	12	45	7	40	50		141	20	Build house and support school.
				4	43	15	58	5	38	88		65	00	Support school.
				5	35	1	34	8	20	00				
				6	28	6	35	4	17	00				
	frac.			2	23	7	30	3	14	58				
Eckford,		6	7	1	18	22	25	3				73	00	Support school and repairs.
				3	20	5	25	4	27	35	1 94	13	01	do
				4	38	6	44	6½	38	29	2 72	49	71	do
				5	33		42	7	27	35	1 94	31	72	do
				6	27	3	21	3			2 43	22	00	do
	frac.			1	11	1	12	9	12	04	86			
	frac.			2	5			3						
Clarendon,		9	4	1	76	18	94	9	57	12	4 22			
				2	26		24	3	20	00	2 51			
				4	39	5	38	3	29	25	2 18	60	35	Support of school.
	frac.			2	12	2	14	6						
Sheridan,		4	4	1	48	7	52	7	41	16		50	00	Support of school.
				2	47	10	44	3	25	00				
				3	28	23	29	6	23	93				
	frac.			1	26	24	109	9	5	60		92	00	Support school.
Albion,	frac.	9	6	1	72			9	78	74				do
				2	79	6	87	4½	38	00		63	00	do
				3	18		36	3½	19	34				
				4	30	10	32	3	20	25		27	75	do
				5	10	4	14	3				13	00	do
				6	49	4	53	6	36	00	8 00	298	09	Build house and support school.
Homer,		7	7	1	75	6	78	9	84	39		82	00	Repairs and do
				2	39	9	44	6	36	89		83	33	Stove, do
				3	6	1	6	3½	8	43				
				4	25		31	3						
				5	24	12	17	3	23	67		43	00	Support school.
				6	28	13	41	3	25	58				
	frac.			2	6		6	3						
Emmet,		8	7	1	36	8	51	7½	37	83	3 01	51	41	Repair house and support school.
				2	43	4	38	7	15	00		104	55	Support school.

Digitized by Google

Calhoun County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Emmet,			3	21	4	33	3 months.	$16 78			
			4	30	no app't.						
			5	26	9	42	7	31 52	$3 01	$62 00	Support school, and stove.
			8	19	6		7	17 11		100 00	Finishing house.
			9	26	2	34	9	24 30		67 00	Support school.
Battle Creek,		7	1	135	9	125	12	44 40		275 00	Repair and support school.
			4	32	1	26	3	10 00		14 00	Support school.
			5	36		35	4	16 40			
			6	57	10	67	8	18 10		70 00	do
			7	41	12	55	10	18 40		72 60	do
						Eaton County.					
Bellevue,		4	1	61	8	69	9	$30 69		122 87	Support school and repair house.
			4	30		30	3				
	frac.		1	18		14	3	23 50		10 00	Repair school house.
Oneida,		5	1	21	2	20	5	6 76		23 24	Support school.
			3	11	7	8	3	2 89		16 61	do
Kalamo,	frac.	2	1	22	4	22	3	8 00			
			1	12	1	5	3	3 25		10 00	Repairing school house.
Vermontville,		1	1	39	4	46	5	23 66		125 00	Repair stove and support school.
						Genesee County.					
Argentine,		6	4	22	22	22	4½			50 00	Finishing school house.
Fenton,		7	1	96	10	96	7½	100 82		400 00	To build school house.

Digitized by Google

				3	30	10	40	3		30 17		10 00		
				4	33	6	39	6		31 52		55 64	Support school.	
				5	36	6	42	7						
				7	11	4	11	3						
				2	22		22	4		29 98		25 00	Finishing school house.	
Flushing,		7	1	1	26	3	29	3				120 00	Build house and support school.	
Flint,		9	7	1	75	6	60	9		74 32				
				2	28	5	33	6				49 60	Support school.	
				4	40	2	29	3						
				5	30		25	7		50 45				
				6	39	9	42	7		48 00		24 00	do	
				8	31	5	36	6						
				9	14			1st report.						
				1	26	7	33	9½		24 12				
Genesee,		5	5	2	40	12	52	9		34 80		53 00	do	
				3	24	2	13	3				18 00	do	
				4	27	3	26	6		22 50		8 00	do	
				5	9	2	10	5		15 00		14 00	do	
Grand Blanc,		10	9	1	53	6	60	7½		65 33		47 30	do	
				2	35			9						
				3	18		16	4		25 89				
				4	29	6	36	3½		19 50		35 75	do	
				5	39	7	48	7½		47 00		16 00	do	
				6	27	10	38	8		12 60	10 00	23 00	Repair school house.	
				7	27		16	3		25 82		2 15	Support school.	
	frac.			8	9			3						
	frac.			2	4		4	5½		5 00				
		1	1	1	13	2	15	4				35 00	do	
Kearsley,														
Mundy,		7	5	1	23	2	25	4		35 36		6 00	do	
				2	6	3	8	5½		3 84				
				4	14	3	23	4		15 20				
				6	20	3	21	4		15 96				
				7	8	2	8	3						
Vienna,		3	2	1	18	10	26	3		17 92				
				2	18	1	19	3		24 64				
							Hillsdale County.							
Adams,		9	5	1	11	2	18	3		5 14		66	do	
				3	49	9	68	3		17 48		31 00	do	

Digitized by Google

Hillsdale County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher in each.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Adams,			4	15	8	18	3 months.			$16 50	Support school.
			6	32	3	42	6	$15 42		50 58	do
			7	27	4	35	3	6 33		24 17	do
Allen,	3	4	2	45	16	60	7	21 16		60 00	School house.
			6	19	6	20	3	9 00			
frac.			6	12		12	4	4 36			
frac.			8	6			3				
Camden,	1	1	1	8	14	46	3			12 00	Support school.
Canaan,	2	2	1	25	3	28	3	9 75			
			2	17	10	16	2 1st rep.			140 00	Build school house.
Fayette,	5	3	1	88	9	84	8				
			2	43	10	53	5½			30 00	Support school.
frac.			6	7	3	8	3				
Florida,	7	1	3	30	3	42	3			11 56	do
Litchfield,	7	6	2	40	3	43	5			31 50	do
			3	30	5	35	5½			50 00	do
			4	33	14	43	3			48 46	do
			6	15		15	4			43 00	do
			7	28	2	30	3			21 00	do
			8	24	4	28	6			45 00	do
Moscow,	8	7	1	68	15	50	7	25 63		41 37	do
			2	39	15	81	8	27 33		53 67	do
			3	30	10	40	7	16 82		48 82	do
			4	17	1	18	2 1st rep.				

Digitized by Google

	frac.			1	34	5	37	3	10 31	4	81	do
	frac.			4	3	3	6	4	1 27			
	frac.			3	7			1st report.	4 00	175	00	Build school house.
Pittsford,		11	5	1	25	10	35	6 months.	16 35	250	00	do
				2	47	9	33	7		13	00	Repairing house.
				3	25	7	32	7¼	11 08	48	50	Support of school.
				6	15	5	29	3		17	77	do
				8	14	3	17	3¼		5	00	Repairing house.
Reading,		7	5	1	26		20	5¼	16 38			
				2	43	2	39	5½	14 90	30	47	Support school.
				5	25		19	3				
				7	12		8	6		31	50	Support school.
	frac.			4	7			1st report.				
Somerset,		11	7	1	24	7	59	7 months.	12 97	44	70	Support school.
				3	25	1	40	3		100	00	To build school house.
				4	41	9	52	6	16 44	25	50	Support school.
				7	33	7	27	3	11 00			
				8	15	3	20	4	5 80			
				9	30	10	28	4	8 00			
				11	25		30	3				
Scipio,		5	4	1	32	5	37	3				
				2	26	10	36	3	9 26	38	75	Support school.
				3	54		43	7	16 20	28	80	do
				5	10	2	12	5				
Woodbridge,		12	1	4	15	5	21	5¼		46	30	Support school, and a stove.
Wheatland,		9	6	1	33	7	49	3	12 00	45	00	Support school.
				4	15		20	3				
				5	46			3	16 80			
				8	17	4	29	3	12 00			
				9	27	2	28	3	9 20			
				11	14		30	3		102	00	Build house and support school.

Ingham County.

Ingham,		6	3	3	27	3	55	6¼	14 80	51	70	Support school.
				4	12	2	13	3				
				5	15	6	21	5	4 00	21	00	Support school.
Phelpstown,		1	1	1	12		no app't.		10 00			Purchase books.
Aliedon,		1	1	1	15	3	18	4	92 00			
Aurelius,		2	2	2	33	9	42	7	9 00	45	00	Support school.

Digitized by Google

Ingham County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher in each.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
	frac.		6	10	2	12	9½ mos.	$4 00		$45 00	Support school.
LeRoy,	3	2	1	10	7		3				
			3	3			1st report.				
Vevay,	2	2	1	29			4½	14 38		40 00	Repairing school house.
			2	22	6	24	5	6 40		13 00	Support school.
Brutus,	3		1	17	14	19	6			47 00	do
			2	11	12		1st report.			110 00	Build school house.
			3	9	11	10	1st report.			100 00	do
Leslie,	5	3	1	52	7	54	6	36 20			
			2	11	1	10	3			115 00	Build house and support school.
	frac.		1	5			3				
Stockbridge,	5	3	1	37	8	50	5	21 55		25 00	Stove, and repairs.
	frac.		1	11	2	13	3				
	frac.		3	18	12	30	8	9 88			
Onondaga,	4	4	4	16	1	11	3				
			2	10		10	5			12 00	Support school.
			1	42	5	41	6	14 00		24 13	do
			10	13	2	10	3½			50 00	Build house.
White Oak,	6	4	1	16	7	17	7	7 60			
	frac.		2	16		13	8	5 00			
			3	17		19	3	6 80		5 00	Support school.
			2	25		20	6	10 30	$10 00	20 00	do
						Ionia County.					
Ionia,	1	2	2	11	63	19	83	9 months.	37 14	1	153 98	Support school.

Digitized by Google

Boston,		2	2	2	25	4	25	3		24	60	10 00	20 00 Support of school.
				1	24			1st report.					
					7			1st report.					97 50 Build school house.
Lyons,		6	4	1	44	4	64	8		33	44		565 53 Build house and support school.
				4	9	4	14	3		8	80		34 07 Support school.
				5	15	6	24	3		13	20		56 00 do
				2	13		20	5½		8	32		
	frac.												
Case,		1	1	1	2	10		3		14	65		15 00 do
Portland,		4	3	1	18	4	15	3		6	00		
				3	43	3	53	8					
	frac.			2	22		35	5½		8	40		

Jackson County.

Concord,		8	4	1	65	8	68	8		24	25		109 75 Support school.
				2	42	5	57	3		17	60		53 50 do
				7	21	5	33	6		6	30		30 00 do
				8	25	1	20	3					150 00 Building house.
Columbia,		6	6	1	20	1	30	3		9	20		
				3	46	10	57	7		18	00		62 50 Repair house and support school.
				4	43	12	68	5½		17	60		105 00 Support school.
				6	32	7	38	3		10	00	10 00	78 00 Finishing house.
	frac.			5	24	14	64	5		9	60		44 00 Support school.
	frac.			8	23	5	28	3		8	00		12 20 do
East Portage,		9	3	6	27	2	29	4		10	73		
				5	20	6	20	3					20 00 Repairing school house.
				9	13	4	17	3		5	24		
Grass Lake,		12	10	3	43	7	50	3		14	00		28 00 Support school.
				4	37	10	47	6		12	00		do
				5	44	12	50	8		12	00		61 00 do
				6	36	2	49	6		13	60		22 90 do
				8	37	4	38	8		14	40		
				9	33		36	8¾		12	40		55 00 do
				10	18	18	36	3					
				11	25	7	32	3½		8	40		67 10 Support school and build house.
				12	27	10	60	4					
	frac.			1	8	1	9	7		3	60		
Hanover,		9	6	1	10	no app't.							175 00 Build house.
				2	44	13	57	6½		15	81		47 69 Support school.
				4	23	6	34	3¾		10	56		167 67 Build house.

Digitized by Google

Jackson County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher in each.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Hanover,			7	19	8	27	3 months.				
			8	22	14	24	3	$5 00		$90 00	
Henrietta,	4	3	1	29	15	44	7	14 37		70 00	Support school.
			2	25	5	30	3				
			8	8	3	17	3				
			9	11		11	3				
Pulaski,	4	1		97	12	99	3	17 50		102 00	do
Jackson,	13	10	2	26	12	57	9			120 00	do
			4	24	7	40	4	15 60		88 50	do
			5	57	6	36	3	5 00		57 00	do
			7	57	17	73	6½	22 00			
			3	23	24		3	8 00		34 00	do
			12	34	6	41	no appor't.	12 40		119 10	do
			13	48	17	84	8 months.	19 60		64 40	do
			3	24			5				
			1	242	61	212	11			111 00	Pay judgment.
	frac.		16	15	2	19	3	3 72			
Liberty,	10	10	1	17	7	57	7	7 75		44 70	Support school.
			2	13	2	13	6	3 59			
			3	19	no app't.		2½				
			4	30			4	15 91			
			5	22			1st report.				
			7	22			6 months.	6 66		18 00	To buy stove.
			8	14	2	24	3	9 91		90 00	Support school.
			9	21		21	3	9 91		19 09	do

Digitized by Google

| | | |

Jackson County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Thompkins, frac.	5	2	1	18	4	25	3½ months.				
			3	17			1st report.				
Parma,	7	5	1	20	6	50	8 months.	$19 50		$72 00	Support school.
			2	36	9	44	6½	14 00			
			3	21	3	22	3	8 80		7 45	do
			5	16		16	3	4 80		13 20	do
			7	46	14	54	5	14 40		35 40	do

Kalamazoo County.

Alamo,		2	1	50	8	58	3			140 00	Support school and repairs.
			2	22			1st report.				
Brady,	11	3	1	43	14	57	9 months.				
			4	100	25	125	9		$10 00	200 00	Finishing school house.
			10	33	2	17	3				
Charleston,	7	5	1	41			1st report.				
			2	29	6	45	6 months.			59 50	Support school.
			5	25			1st report.				
			6	46	26	63	4 months.			78 00	do
			7	36	2	44	3			47 15	Support school and repairs.
Climax,	3	3	1	39	18	18	6				
			2	44	10	38	4			58 00	Build house.
			3	25	2	23	3				
Comstock,			1	53	15	77	6½			82 50	Support school.
			3	60	10	70	7				

Digitized by Google

Cooper,	4	4	1	14		17	3			93	00	do
			2	34		54	9					
			4	17			no app't.					
			5	26		34	6		10 00	10	00	
Kalamazoo,	8	2	2	130	70	75	8			290	00	Support school.
			7	16			1st report.					
Pavilion,	3	1	1	28	3	31	3½					
Portage,	10	1	3	89	24	120	4			123	27	do
Prairie Ronde,	7	5	1	69	16	70	7					
			2	12	2	14	4					
frac.			3	5			3					
			4	70	12	73	7					
			5	28	10	26	3			25	00	Repairing house.
Richland,	6	3	1	27	6	29	3					
			4	17			5					
			5	56	7	49	6					
Texas,	5	2	1	17	3	27	7½			250	00	Build house.
			3	15	10	10	3					
Ross,	6	4	2	24		24	6					
			4	31	12	43	9					
			6	39	3	42	4					
			7	6		6	6					

Kent County.

Byron,	5	3	1	55		41	4	20 00				
			2	15			3	10 00				
			5	18		19	3					
Kent,	2	2	1	77	10	98	5½	30 20		666	57	Build house and support school.
			2	58	7	28	4½	20 20		61	00	Support school.
Plainfield,	2	1	1	38	11	36	3	16 45				
Paris,	1	1	1	31	5	34	4½	17 00		75	50	do
Walker,	5	3	1	56	4	40	4½	20 80		18	00	Repairing school house.
			3	28	3	31	5½		10 00	100	00	Build school house.
			4	27	3	30	6			105	00	Build house and support school.
Vergennes,	7	5	1	47	3	30	4	9 20		150	00	do
			2	12	1	11	4					
			5	19	3	19	3					
			6	38		26	3	11 00				
			7	30	9	34	3	12 00		45	00	Support of school.

Digitized by Google

Livingston County.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Green Oak,	10	7	1	34	10		3 months.	$17 65			
			4	25		35	6	10 00		$10 00	Repairing house.
			6	38	4	30	7	13 60			
			9	20		19	6	5 20		36 76	Support school.
			10	11	2	36	6				
	frac.		3	24			3¼	10 00			
	frac.		8	28			3				
Hamburgh,	8	6	1	45		31	3	23 47		24 53	do
			2	10	10	19	3	5 20	no app't.		
			3	28	2	30	3	16 00		8 00	do
			6	32		18	3				
			7	23	3	22	3	7 00			
			8	25	3	21	3¼				
Putnam,		6	1	16		16	3	6 27			
			2	65		30	9	27 55		120 00	do
			3	23	8	33	5			29 72	do
			4	41	7	44	7¼	19 32			
			5	11		12	3¼	5 79		13 00	Repairs.
			6	31	5	42	3	10 62		28 00	Support school.
Unadilla,	12	6	1	17		6	3				
			2	28	3	26	3	8 40			
			3	32	20	49	3	12 80		55 82	do
			8	21	10	30	6	9 60		31 80	do

Digitized by Google

| | | |

Livingston County—Continued.

Townships.		Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher in each.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Osceola,	frac.			1	7	1	29	3½ mos.	$5 62		$18 00	Support school.
	frac.			3	14	2	23	6				
	frac.			3	5	1	12	3			130 00	Building school house.
Howell,		4	4	1	37	34	52	7½	12 43		70 00	Repair and support school.
				2	14	no app't.						
				3	17		17	3	6 00		53 00	To build house.
				4	19	17	18	1st report.			10 00	Support school.
Tuscola,		5	4	1	12		15	4½	no app't.			
				2	33	7	42	4½	9 40		179 00	Build house.
				3	24			1st report.				
				4	17		11	4			310 00	Build house and other purposes.
Deerfield,		6	4	1	42		45	6	21 42			
				2	26		80	4	12 35			
				3	7	3	23	6				
				5	16		22	3				
Tyrone,		7	4	1	27		41	3				
				2	24		24	3				
				3	24			no app't.				
				4	27	5		5½	36 36			

Lapeer County.

Atlas,		9	6	2	36	8	41	6	10 78		21 00	Support school.
				4	26	6	31	3	11 61			
				6	9	1	7	3			30 00	do

Digitized by Google

				7	49	9	44	5	10 00				
				9	26	3	27	4	20 00		29	95	do
				8	38	3	40	4	12 44				
Richfield,		2	2	1	23	3	23	3	8 00		5	00	do
				2	13	2	12	4	4 00		17	25	do
Bristol,		12	8	1	48	14	62	7	17 20		270	60	Build house and support school.
				3	29	10	39	5	12 00				
				4	21	8	29	4	7 20		30	00	Support school.
				5	33	14	47	3	12 40				
				8	13	2	15	3			12	00	do
				9	17	4	21	6¼	6 00		35	00	do
				10	34	6	40	3	13 60		26	40	do
				12	9			1st report.					
Dryden,		11	5	1	62	16	38	7	23 25		38	75	do
				2	33	5	27	7	7 00		52	75	do
				5	20	4	15	3					
				6	37	6	31	3	9 00				
				3	35	2	29	3			75	00	To build school house.
				1	13			5					
Elba,		2	1	1	25	13	38	6	8 40		84	00	Support school.
Hadley,		3	3	1	10	2	10	3	4 40		12	00	do
	frac.			5	19	3	26	5¼	11 70		40	00	do
Lapeer,		10	5	1	65	4	41	3			300	00	To build school house.
				2	37	4	24	5			41	26	Support school.
				3	40	9	29	2	1st rep.	12 80			
				5	10	3	25	4					
				6	32	3	16	3	12 40	$10 00	91	97	do
				7	6	1	5	5¼					
Metamora,		7	4	1	23	11	84	5¼	9 03	10 00	90	00	Build house and support school.
				6	37	10	45	10	15 31		50	00	Support of school.
		1		2	10		33	4					

Lenawee County.

Adrian,		18	11	3	74	9	67	6	24 40				
				4	48	14	62	8	16 00		64	00	do
				5	26	3	23	3					
				7	77	11	61	8¼	28 63				
				8	57		45	5	20 80		31	20	
				10	20	3	25	4					

Digitized by Google

Lenawee County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Adrian,			11	28	15	58	5½ months.	$12 40		$89 12	Build house and support school.
			13	25	3	32	6	8 00		37 50	Support school.
	frac.		1	33	2	35	4	9 40		20 00	Repairing school house.
	frac.		2	31	4	30	9	11 20			
	frac.		4	30	8	38	7	6 00		69 00	Support school.
Blissfield,	11	6	1	29	8	34	2½	20 00	no app't.		
			2	34	4	29	4	9 32		22 00	do
			3	33	6	62	6	18 22		59 78	do
			4	57	12	70	6	23 22		20 00	Repair school house.
			6	22		18	3	7 22			
			9	9			1st report.				
Cambridge,	9	7	1	44	6	47	8 months.	19 45		72 20	Support school.
			2	30	8	37	7	22 84		43 54	do
			4	35	12	52	4	12 68		52 40	do
			6	18		33	3			100 00	To build school house.
			7	20			no appor't.			200 00	do
	frac.		1	15	2	21	3	4 23		40 39	Support school.
	frac.		1	11	2	18	6			40 00	Finishing school house.
Dover,	11	10	1	21	2	31	4	16 80		13 00	Support school.
			2	42	4	42	6	16 00		6 00	do
			3	33	6	46	3	12 80		7 92	do
			4	6		4	3				
			5	31	12	55	3	12 80		26 28	do
			6	43	9	57	3	18 40		4 07	do
			7	29	2	31	3				

Digitized by Google

| | | |

Lenawee County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Madison,			9	17	9	27	3 months.				
frac.			4	39	6	35	3				
frac.			1	17	17	17	3¼				
frac.			2			36	3				
Medina,	11	7	1	32	8	70	7	$18 34			
			2	30	14	44	3	16 10			
			3	7	7	37	6	2 81		$10 00	Support school.
			4	10	12	12	3				
			6	14	2	10	6	4 47		1 70	Repairs.
			5	20	6	27	6	10 25		101 23	To build house.
frac.			1	32	8	70	7	18 34			
Ogden,	9	5	7	13	1	32	3	3 20			
			2	15	2	16	4	2 80			
			3	19	1	16	4				
			5	19	3	17	3				
			6	14	3	14	3			60 00	do
Palmyra,	13	5	1	27	no app't.		6 days.	11 40			
			5	52	5	42	5 months.	19 60		32 30	Support school.
			8	35	10	75	5	12 00			
			2	26		26	3			16 30	
			7	24	15	42	5	14 00		36 00	do
frac.			1	4		4	3				
Raisin,	10	9	1	56	10	67	7¼	25 76		69 25	do
			2	42	2	46	3	20 06		20 00	do
			3	48	2	50	6	19 63		40 37	do

Digitized by Google

				5	57	13	66	7½	20 06		60 00	do	
				6	35	4	40	3	15 25		36 25	do	
				7	31	14	50	3	14 39				
				8	20	14	15	4			20 00	do	[school.
		frac.		1	47	19	60	4	14 83		147 00	Build fence, buy stove and support	
		frac.		2	20	5	29	4			20 00	Support school.	
Rollin,			10	1	19	3	17	3	6 00				
				2	11	6	17	3					
				3	16	10	no app't.		50	$00 50			
				5	52	3	55	3	16 00		18 00		
				7	42	16	53	3	15 60		33 40		
				8	15	5	18	3					
Rome,			10	1	46	7	66	6	22 40		6 92	Repair school house.	
				2	49	4	54	8	28 40				
				3	32	16	41	3	11 20		8 00	do	
				4	36	7	34	4	12 00		33 00	Support school.	
				5	18	2	29	4	8 00		16 50	do	
				6	21	1	17	3	9 60				
		frac.		1	15	5	20	3	4 20		20 00	do	
		frac.		1	30	5	35	4	10 20		20 00	Repairing house.	
		frac.		2	31	6	35	9	30 00				
		frac.		4	8	8	16	7	6 00		17 00	Support school.	
Seneca,			7	1	40	9	31	6			251 78	Build school house.	
				2	17	7	24	5			306 45	do	
				3	24	7	39	6	12 87		10 00	Repairs.	
				6	19		23	6	10 00		11 50	Support school.	
Tecumseh,			10	1	52	4	35	3	14 80		33 20	do	and repairs.
				2	157	10	115	4	66 00		64 00	do	
				3	33	26	36	8	20 00		10 00	do	
				4	63	11	52	4	25 20				
				5	43	7	34	6			12 00	Repairing house.	
				6	34	2	34	4	12 00		72 00	Support school.	
				8	75			4	27 00				
				9	39	10	49	6	14 00		58 00	do	
		frac.		1	16	14	56	8	6 00		292 74	Build house and support school.	
Woodstock,			8	1	38	30	41	6¾	16 38		36 62	Support school.	
				2	57	11	64	6¾	26 56		40 99	do	
				8	34	21	56	3	13 50		26 00	do	
		frac.		1	5		5	7	1 78		44 70	do	

Digitized by Google

Lenawee County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher in each.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Woodstock,			7	26		10	3 months.			$75 00	To build house.

Macomb County.

Shelby,	10	10	1	40		40	6½	$12 80			
			2	28	6	35	4	10 00		22 00	Support school.
			3	41		41	5	7 50		16 50	do
			4	50	17	67	7	24 80			
			5	48	6	54	6½	11 60			
			6	30	2	27	6			62	
			7	53	5	58	6	18 80		1 36	Repairs.
	frac.		1	65	15	80	11½	23 26			
	frac.		2	39	5	41	4	18 00		26 29	Support school.
	frac.		3	28	8	26	7½	9 29	$10 00	242 00	Support school and build house.
Washington,	13	10	1	49	11	60	11	21 50		63 00	Support school.
			3	45	8	25	4	12 80		100 00	Support school and finish'g house.
			5	14	2	16	6	5 12		61 20	Support school.
			6	57	10	70	10½	23 20		50 00	Support school and repairs.
			8	36	7	43	6	15 20		56 90	Support school.
			9	40	15	50	5	19 20	1 00	15 00	do
			10	57	18	57	8	13 60		40 00	do
			11	20	18	46	3	8 00		1 25	Repairing school house.
			12	40	20	60	7½	13 70	10 00	28 00	Support school.
			13	89	11	85	4	28 80		68 00	do
Armada,	13	9	1	27	2	25	6	14 15		28 88	do
			3	12	2	12	3	14 44		36 56	do

Digitized by Google

				4	35	8	43	7	17 20		41 80	do		
				5	39	9	48	5						
				6	29	10	39	4	12 00		35 00			
				7	29	4	33	5	12 00		15 00	do		
				8	19	6	24	3	12 00		40 00	do		
				9	26	6	22	3	7 23			do		
				13	24	3	27	3						
Bruce,		14	8	1	66	22	101	11	22 40		222 00	Repair house and support school.		
				2	23	10	43	4	14 34					
				4	29	4		5			23 00	Repairing house.		
				5	43	6	35	3	32 90					
				6	32	3	40	5			226 00	Build school house.		
				7	51	29	43	7	20 99		54 70	Repair house and support school.		
				9	23	4	52	6	9 00		35 00	Support of school.		
				14	63		42	4	16 00		16 00	do		
Macomb,		11	7	1	24	13	39	3	10 40					
				2	23	2	24	3	9 18	25 00	40 32	do		
				3	31	11	52	7	11 80					
				4	23	1	19	3						
				5	50	5	60	7¼	15 20		53 65	do		
				7	59	6	41	6¾	13 62					
	frac.			9	31	2	22	4¾	10 00					
Ray,		7	7	1	36	8	44	6	10 25		49 75	do		
				2	37	8	42	4	11 60		41 25	do		
				4	29	7	36	7	11 12		63 88	do		
				6	35	7	40	6	10 00		43 50	do		
				7	24		23	3	10 00					
	frac.			2	61	13	74	7	22 00		82 00	do		
	frac.			3	31	6	51	3	14 44		36 56	do		
Richmond,		6	6	1	12	8	12	9		10 00	54 00	do		
				3	11		10	3	5 20		7 80	do		
				4	12	6	25	3	6 40		81 00	do	and build house.	
				7	8		7	5	3 20					
				8	29	13	27	3	13 40		40 00	do		
				11	41	2	43	8	15 20		46 18	do		
Orange,		6	3	1	57		57	no app't.						
	frac.			2	19	2	21	3½	3 4 00					
	frac.			4	3		3	no app't.						
Warren,		5	4	1	32	6	40	7	17 00		130 00	Build school house.		

Digitized by Google

Macomb County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher in each.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Warren,			2	23		7	5 months.			$3 00	Repairing school house.
			3	20	6	26	6				
	frac.		2	18	2	19	3½	$34 00			
Harrison,	3	1	3	52	1	31	5½	18 00		39 82	Support school.
Lenox,	10	3	1	14		12	4	5 05			
			4	31		26	6	11 43		25 17	do
			9	24	3	31	5	15 71		22 11	do
Clinton,	9	6	1	110	6	50	6				
			2	47	1	26	3	12 00		2 00	do
			4	11		11	7				
			5	29	9	22	6	11 00		62 57	do and repairing house.
			7	46	7	46	9	15 29		140 00	do and rent.
	frac.		9	13	2	10	4½	8 40			
Sterling,	10			109							
Mackinac County.											
Holmes,	2	2	1	116	2	28	8	40 00			28 attending private school.
			2	68		35	9	20 00			
Monroe County.											
Lasalle,		5	2	64	7	55	8	34 32		31 00	Support school.
			3	33	6	32	3	14 92			
			4	32	2	32	4½	15 39			
			5	42	2	37	6	14 73		7 00	Repairs.
			9	21	2	25	4	8 95		60 00	Support school.

Digitized by Google

Whiteford,		5	5	1	22	2	24	3				120	78	
				2	8	3	11	3	3	60	$15 00	75	00	School house.
				3	50	4	50	7	16	00		45	00	Support school.
	frac.			1	5	1	8	6				33	00	do
	frac.			2	19			6						
Raisinville,		12	6		40		50	7	27	50				
				8	27	4	26	3				45	00	do
				7	27	4	17	3				20	00	do
				10	19	6	25	3						
	frac.			11	14	1	14	3						
	frac.			2	28	1		4	6	87		10	13	do
Milan,	frac.	5	4	1	21	4	25	3	17	87				
				2	35		34	6	31	38		105	00	Build school house.
	frac.			5	6		12	3½	5	09				
	frac.			6	19	3	23	3	12	72		106	00	To build school house.
Monroe,		12	5	2	51		no app't.							
				6	122	5	22	3	70	23		100	00	
				8	102	7	46	6	65	76		80	00	Support school.
				9	69	8	40	6	42	76				
				11	42			9				12	50	
London,		8	5	1	29	6	34	3	25	26				
				2	18	3	29	3						
				4	33	7	32	5½	17	28		51	28	Support school.
				6	9	2	11	3						
	frac.			1	10	2	24	3	7	98				
Summerfield,		5	4	1	24	7	44	3	40	02		28	40	Support school.
				2	70	7		4	134	69		78	00	do
				3	25	7	35	3	37	70				
				4	19	6	22	3	61	53		10	00	do and repairs.
Ash,		10	8	1	41		40	4	18	48				
				3	44	12	32	5	27	00				
				4	35		35	3	20	00				
				5	24	3	23	6	51	00		30	00	
				7	19			1st report.						
				8	31		31	3	8	00		15	00	Support school.
				9	30		17	3	12	50	8 00	15	00	Repairs.
				10	62		42	5	26	50	10 00	5	00	do
Bedford,		8	8	1	19	6	22	6	16	12		27	38	Support school.
				2	14	3	17	3	13	90				

Digitized by Google

Monroe County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher in each.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Bedford,			3	16	3	23	3 months.	$16 05			
			6	35	11	34	4½	37 37		$42 00	
			4	17	4	21	3	25 63			
			5	7		7	no app't.	5 35		66 00	
	frac.		1	3	3	8	6			33 00	Support of school.
	frac.		2	11	10	29	6	10 70			
Dundee,		9	6	31	7	40	3	16 72			
			4	16	4	15	3	6 00			
			5	92	5	97	7	32 00			
			6	17	3	11	3	8 80		22 00	
			7	39	8	38	no app't.	11 60		60 00	do
	frac.		8	21	7	44	3	6 00		28 40	
Erie,		9	4	1 41	3	25	3	13 20		40 00	do
			2	59			3	32 00			
			3	62	6	32	6	16 21		33 37	do
			7	11	3		4	4 00		26 40	do
Exeter,		6	3 1	13	6	17	3				
			5	25			no app't.				
			6	10	1	14	2				
Frenchtown,		8	2 5	23	2	25	3				
			6	17	8	25	6			51 00	do
Ida,		4	1 2	81	6	87	12	185 30	$6 00	17 00	

Ottawa County.

Ottawa,	1	7½	11	11	50½	6½	38½	8			

Digitized by Google

Oakland County.

West Bloomfield,		10	10	1	22	6	54	3	13	70	30	30	do
				2	25	2	20	3	9	70	29	42	do
				4	50	7	47	4	17	00	68	00	do
				5	25	6	16	3	8	87	45	00	do
				9	29	6	35	3	3	00	65	00	To build house.
				10	29	1	31	4	8	87	31	13	Support school.
	frac.			1	17	3	20	3	4	87	45	00	do
	frac.			2	10	8	43	4¼	12	00	22	76	Stove, and pipe.
	frac.			4	15	12	23	3	4	41	80	00	Support school.
	frac.			3	33	2	30	4	10	25	61	75	do
Orion,		9	5	1	30		45	4	17	10			
				2	51	11	36	6	21	00			
				7	24	6	25	4	11	70		38	do
				8	13	23	27	4¼					
				9	21			1st report.					
Independence,		8	2	3	26	4	30	3			15	50	do
				4	37		30	3	14	80	12	20	do
Avon,		12	7	1	82	6	91	9	24	00			
				2	48	6	55	8	17	20	38	04	Support school, and a stove.
				4	46	11	57	9	18	00			
				5	83	10	65	11¼	45	19			
				7	57	5	61	9¼	21	18			
	frac.			10	43	8	48	9	18	75	65	25	do
	frac.			1	52	6	49	6	9	00	74	25	do
Oxford,		5	5	1	31		18	4	8	80			
				2	13	4	38	5					
				3	27	6	33	3	9	40			
				4	32			3	10	40			
				5	53	3	41	4¼	28	70			
Rose,		7	4	2	27	1	22	3¼	5	60	11	50	do
				4	22	10	26	6	8	80	42	20	do
				5	69	7	25	3	6	70	18	00	do
				6	12	4	18	6¼	6	00	24	00	do
Commerce,		14	5	1	50	2	66	3	22	80	22	20	do
				2	36	6	45	4	13	60	25	40	do
				3	61	10	95	8	18	00	102	00	do
				4	23	5	28	3	10	40	60	00	do
	frac.			4	15	5	20	3	4	80	32	00	do

Digitized by Google

Oakland County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Springfield,		3	1	34	6	40	6 months.	$29 40	$10 00	$61 48	Repairing school house.
			5	27	4	23	3				
			3	36	6	42	4	60 27			
Holley,	5	4	1	41	4	44	3	9 75			
			4	36	7	47	4			83 00	Finish house and support school.
			5	37	10	49	3	7 05		8 00	Repair house.
	frac.		9	8			6				
Lyon,	13	13	1	37	15	52	9	12 25		49 50	Support school.
	frac.		1	4	4	8	3			39 24	Build school house.
	frac.		1	12		60	3½	6 75		65 00	Support school.
	frac.		1	5		5	3	2 42			
	frac.		1	5		4	6				
	frac.		2	22	4	35	7	6 07		81 00	Repair house and support school.
			3	60	30	45	6	27 27		40 06	Support school.
			4	62	24	50	3	20 27		40 25	Support school and repair house.
			6	40	15	66	8	27 37		37 90	do
	frac.		3	23			3	28 00			
	frac.		4	40			3				
	frac.		5	16	7	25	3	5 42		100 00	Build house.
	frac.		1	10			7				
Brandon,	7	5	1	26	11	31	6	11 00		55 00	Support school.
			2	23	10	33	3	3 48		134 00	Build house.
			3	36	3		3			72 00	Support school.
			4	20	5	25	4½				
	frac.		1	24	16	17	3	6 00		30 00	do

Digitized by Google

Groveland,		6	5	2			51	7		13	02	322	84 Build house.
				3		5	23	3					
				4			43	4		10	85	34	15 Support school.
				6			25	6		9	63	15	00 do
				12	167		23	3					
Addison,		8	5	2	27	7	33	6		9	60	22	90 Support school.
				3	21			3		8	80	27	00 School house.
				4	32	6	35	6		10	80	18	95 Support school.
				5	25			6		15	20	60	00 School house.
				7	19			1st report.					
White Lake,		13	2	3	42		53	3½		16	80		
				7	20		20	3½				18	50
Farmington,		15	13	1	72	8	68	10		31	23	120	00 Support school.
				2	64	12	60	5		25	24	398	00 do and build house.
				3	57	28	55	9		20	50		
				4	40		63	4		17	00	70	00 do and repairs.
				5	72	25	88	5		29	93	88	70 do
				7	28			7		11	20		
				8	46	8	50	3½		22	00		
				9	37	8	50	8		14	76		
				11	28	3	31	3		11	08		
	frac.			5	17		17	7		4	92	33	28 do
	frac.			1	15	4		3		5	30	45	00 do
	frac.			6	39	10	46	8½		13	12	81	00 do
	frac.			9	12		32			2	83	86	59 do
Milford,		11	8	3	31	8	35	3		21	58	38	42
				4	34	16	50	8		20	44	14	62 Build house.
				5	47	3	33	3		21	58		
				6	21	5	23	3					
				7	28	5	32	3					
	frac.			1	39	10	50	3		20	46	13	00 Repairs and support school.
	frac.			1	11	8	45	7					
Southfield,		12	7	2	49	12	53	4		20	40	54	96 Support school.
				5	36	14	63	9½		15	23	90	30 do
				8	22	5	23	3		8	80		
				10	42	4	28	4		12	38	35	62 do
	frac.			6	35	12	48	8½		16	00	81	00 do
	frac.			7	31	14	39	6½		14	78	50	00 do
				4	32	4	34	3		12	53	43	47 do

Digitized by Google

Oakland County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher in each.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Highland,	9	3	1	60	27	87	4 months.	$24 80		$76 00	Support school.
			2	47	10	59	7¼	12 40		61 55	do
			4	43	5		3	13 20		30 30	do
Royal Oak,	10	6	1	58	23	79	3½	25 60			
			2	38	18	56	4	16 40			
			3	61	15	46	3½	28 80			
			4	31		21	2	11 20			
			9	42	38	39	6½	16 00			
	frac.		7	4			7½				
Waterford,	6	6	1	40	13	57	7½	20 80		83 00	do and repairs.
			5	45	15	60	3	15 20			
			6	45			4	18 80			
			7	52			6				
			8	37			3½	15 60		53 10	do and repairs.
	frac.		1	30			3				
Pontiac.	11	11	1	40		53	8	16 80		30 00	Rent of house and repairs.
			2	87	18	70	6	30 80		55 20	Support school.
			3	60		38	4	35 25			
			5	52	2	45	3½	17 20		8 56	Repairs, &c.
			6	63	6	83	8	24 00		68 00	Support school.
			7	62	10	64	8	23 60		93 33	do
	frac.		8	48	10	58	6	14 60		157 40	do and school house.
			10	19	7	43	7			220 00	To build school house.
			11	31	4	26	6			36 50	Support school.
	frac.		17	28	7	51	4	13 00		50 90	do

Digitized by Google

Novi,		12	12	12	42	8	44	4		14	42		13	58	do
				1	39	8	47	3		12	40		15	00	Repairs.
				2	27	5	28	3¼		10	40		19	60	Repairs and support school.
				3	44	4	38	7		12	40				
				4	47	7	54	6		16	40				
				5	36	3	55	7		14	00		54	00	Support school.
				6	32	5	42	7½		11	60				
				7	81	5	71	3¾		27	28		105	00	do
				8	36	9	30	5		13	20				
		frac.		1	31	3	27	6		12	00				
		frac.		1	21		60	3½		10	40		65	09	do
		frac.		1	11	8	45	7							
		frac.		1	33	3	35	3		12	00		62	00	do
Bloomfield,		12	12	1	88	6	56	8		24	31		40	00	Repair school house.
				2	58	5	45	5		17	37	$12 00	22	00	do
				3	33	8	34	8		16	21		90	00	Support school.
				4	45	8	55	4		20	84		62	03	do
				5	46		30	4		13	51				
				6	50	20	60	6		22	00				
				7	42	5	36	3		23	76				
		frac.		2	27	5	44	6		7	10		115	80	do
		frac.		4	26	4	40	3		10	80				
		frac.		10	8	8	48	9		3	20		65	25	do
		frac.		17	17	7	50	4		6	57		50	00	do
		frac.		2	6	2	17	7		2	40		5	00	Repairs.
Oakland,		8	8	1	44	6	50	4		14	31		59	69	Repair house and support school.
				2	71	5	56	9		20	86				
				3	38	4	42	5		9	31		39	88	Support school.
				4	52	8	57	4		17	59		17	25	do
				6	31	4	35	3		16	77		25	92	do
		frac.		6	16	4	29	8		4	09			50	Repairing house.
		frac.		7	15	6	21	3		6	54		50	00	Repair house and support school.
		frac.		5	3			3		1	63		1	63	
Troy,		14	13	1	47		62	8		16	75		80	00	Build school house.
				2	61	15	90	4		35	69		138	28	Repair house and support school.
				3	48	22	75	8		28	05		90	00	Support school.
				4	34	19	42	3		17	17		42	00	do and repairs.
				5	38	3	26	4		8	31		24	00	do
				6	64	5	50	3		26	93		14	00	do

Digitized by Google

Oakland County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Troy,			7	65	7	72	5 months.	$26 38		$45 70	Support school.
			8	61	8	56	4	26 37		77 33	do
frac.			1	23	6	49	3	2 82		74 75	do
frac.			2	9		40	3	7 95		36 00	do
frac.			2	28	5	54	6	14 00		45 80	do
frac.			9	18		18	5	5 60		35 00	do
frac.			10	13	8	48	9	4 60		65 25	do
St. Joseph County.											
Burr Oak,	5	4	1	32	5	50	7½	11 00		42 00	do
			3	15	2	15	3	6 59		84 00	do
			5	25	4	12	4			28 50	To build school house.
frac.			1	25		19	3	7 25			
Bucks,	5	3	1	32	12	34	4	14 80			
frac.			2	39	3	39	3	13 60			
frac.			5	9	3	9	6½				
Constantine,	10	5	1	50	no app't.	25	1½	30 80			
			2	44	6	50	7	17 00		59 00	Support school.
			4	40	3	37	7	11 08			
frac.			3	4	1	5	6			2 13	do
			3	52	4	35	3	18 38		23 92	do
Colon,	7	4	1	39	10	49	3	13 18			
			2	40	8	48	6	16 20		37 16	do
			4	21	no app't.					137 62	To build school house.

Digitized by Google

					6	30	7	31	7	9 20	34	07	Support school.
	Fawn River,	frac.	4	1	1	14		14	3	14 00	531	15	Build house and support school.
	Florence,		4	1	4	143	14	165	21½	49 21			
	Flowerfield,		2	2	1	40	20	60	7	21 60			
					3	23	3	26	3	8 98			
	Leonidas,		5	4	1	17	17	30	5½	8 00			
					2	38	4	42	7	16 28			
					3	21	7	49	6	14 50	20	00	Support school.
					5	41	12	49	5½	13 51			
	Mottville,		5	5	1	32	14	31	9	9 20	50	80	do
					2	39	6	45	6	7 60	58	00	do
					3	50	1	51	8	11 20	88	20	do
					4	37		36	6	13 00	59	32	do
		frac.			5	16	2	15	6	no app't.			
46	Nottawa,		16	6	2	20	13	52	9	8 71	217	90	To build school house.
					4	23		24	3	8 30			
					5	55	5	60	7½	15 71	25	00	Finishing house.
					6	22		21	3	12 40			
		frac.			5	5	1	9	6				
		frac.			6	15	5	27	7	6 23	25	04	Support school.
	Park,		5	4	1	33	6	55	3	11 60	59	87	do
					3	6	no app't.			3 60	123	07	Build house.
					5	27	4	31	6	12 40	53	73	Support school.
		frac.			2	6		6	3				
	Sherman,		4	4	1	45	10	55	6	19 50			
					2	53	3	56	8	22 70			
					3	69	16	85	8	24 14			
					4	40	3	43	3	14 74			
	White Pigeon,		6	3	1	115	12	115	11	41 20	15	00	Repairing house.
					4	23	3	25	6	7 60			
					6	27	5	36	7				

St. Clair County.

	Berlin,		7	6	1	10	no app't.						
					2	12	6	17	3	4 24	17	57	
					3	33	4	37	3	13 00	1	00	Support school.
					4	17			1st report.				
					5	10	3	12	4	9 69	6	31	do
		frac.			18	4			6				

Digitized by Google

St. Clair County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher in each.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Clay,	5	3	1	13	6	19	5 months	$4 80			
			2	56	5	55	8	17 25			
			3	29	5	22	8	9 06			
Clyde,	1	1	1	35	1	33	3				
Riley,	5	1	2	12	18	30	9			$94 00	Support school.
Columbus,	5	1	3	15		9	3			150 00	Building house.
China,	7	5	1	30	4	52	4½	16 80		23 70	Support school.
			2	11	5	16	3	3 60		12 00	do
			3	23			1st report.	7 00		70 00	To build school house.
			4	54		23	3	26 20			
			5	37		25	3	14 00		16 00	Support school.
Cottrelville,	3	2	1	83	12	81	8	34 68		111 00	do
			2	66	9	55	9	23 56		42 10	do
Lexington,	7	3	4	17		21	6	5 70		6 75	do
			6	8	no app't.	7	2½				
			2	19			1st report.				
Port Huron,		2	3	22	3	21	3	10 80		31 20	do
			5	60	3	50	3	26 40		14 50	do
St. Clair,	5	3	1	59	7	62	8	28 40			
			2	24		24	3	10 00			
			3	18		16	3	8 00			
Shiawassee County.											
Owasso,	1	1	1	46	10	65	3	21 60		362 00	Build school house.
Shiawassee,		5	2	19	3	17	3				

Digitized by Google

				3	21	2	11	3½	34 06				
				4	23	5	16	6	61 65		121	00	Build school house.
				5	18		23	3			45	00	Support of school.
				6	18	6	28	6					
Vernon,		10	3	7	20			1st report.					
				8	22	15	37	7					
				10	11		47	3					
Woodhull,		8	2	1	12	4	16	3			100	00	To build school house.
	frac.			5	4	1	5	3			152	00	do
Antrim,		1	1	1	16	2	17	3	4 40				
Caledonia,		1	1	1	12	4	16	3	6 60		300	00	do
Bennington,		9	9	1	26	9	30	7	16 65		420	00	To build school house.
				2	35	5	29	4½	26 23		23	00	Stove.
				3	21	9	30	3					
				4	15		15	3	25 00	$10 00	300	00	Build house and support school.
	frac.			2	21	15	36	5			200	00	do
	frac.			4	7	3	10	4			300	00	do
	frac.			5	8	1	16	3					
				6	18		11	3					
				7	11	1	14	3					
Saginaw County.													
Saginaw,		3	3	1	83		56	5½	27 10		90	00	Support school.
				2	39	12	39	4	24 00		61	44	Support school and repairs.
				4	31	5	24	3	10 75		50	00	Build house and support school.
Tuscola,		1	1	1	15			1st report.					
Van Buren County.													
Lafayette,		3	3	1	65	13	78	9	27 20		57	00	Support school.
				2	22	3	25	4½	4 40				
				3	15	no app't.							
Hamilton,		5	1	2	11	1	20	3			400	00	Build school house.
Decatur,		7	6	2	32	5	37	3	17 80				
				3	6	no app't.							
				4	30	8	40	3	13 00				
				5	9	2	13	3		15 00			
				6	10			1st report.					
				7	17			1st report.					
South Haven,		2	2	1	10	2	13	4					

Digitized by Google

Van Buren County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher in each.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
South Haven,			2	10		6	3 months.			$50 00	To build house.
Hartford,	3	1	3	15	2	17	3				
Antwerp,	6	4	1	20		17	3	$5 70			
			2	45	12	57	6	14 00			
			5	20	2	16	4	7 20			
			6	21		26	3	8 00			
Lawrence,	4	4	1	3		15	3			50 00	do
			2	35		55	3	12 80		17 00	Repairing house.
			4	20	2	19	4	5 60			
			7	7	no app't.						
Clinch,	4	4	1	17	2	24	5	8 00		100 00	To build house.
			2	17	4	24	3	5 60	$10 00	30 00	Repairing house.
			4	17	3	21	3	4 40		16 00	do
			5	8	no app't.						

Wayne County.

Canton,	11	11	1	35	4	32	3	14 40			
			2	45	3	53	7	20 80			
			3	45	11	74	6	17 20		45 80	Support school.
			4	39	3	44	3	12 80		46 00	do
			6	22	2	24	6	8 40		24 61	do
			7	24		41	6¼	16 00			
	frac.		1	40	12	35	9	16 00		10 00	
	frac.		2	5	9	49	8	3 60			
	frac.		1	32	7	35	5¼	15 60		5 00	Repairing house.

Digitized by Google

	frac.			2	10	1	9	4					
	frac.			1	32	5	47	4½		22	40		
Dearborn,		8	6	1	21	3	24	3		8	00	70	00
				3	37	9	53	6		17	60	5	00
				4	29		26	3		17	40	24	00 Support school.
				5	58	9	52	6		23	60	105	00 do
				7	75	17	92	3		36	80	90	00 do
				8	46			1st report.					
Detroit,		8	8	2	331		57	7½		152	33	425	00 House and lot.
				3	209	6	124	5		77	64		
				4	406		156	7		172	90		
				5	198	50	70	4		98	20	100	00 Voted for rent and repairs.
				6	217	6	163	6		89	81	200	00 do
				7	455	230	235	9		146	88	100	00 Balance on house.
				1	220		90	4		92	32		
				3	57			3		23	92		
Brownstown,		9	4	1	54	12	66	4		37	25		
				2	32	6	38	3		17	22		
				3	22	6	28	3		12	05		
				5	41	8	49	4		18	36		
Redford,		13	12	2	28		24	3		10	00	20	00 Support school.
				3	19	5	24	3		10	40	16	00 do and repairs.
				4	60		54	7		27	20	68	90 do and repairs.
				5	29	5	32	7		11	60	57	40 do
				6	45	5	50	4		17	20	39	13 do
				7	25	3	26	5½		9	62	31	26 do and repairs.
				8	40	8	48	8		15	22	62	00 do
				9	44	12	56	7½		13	60	70	79 do
				10	24		25	3		11	60	14	60 do
				11	26	4	33	3		12	40	26	60 do
				12	32	7	46	6½		14	40	45	41 do and repairs.
				13	25	2	22	3				169	00 To build house.
	frac.			1	3	no app't.							
Springwells,		6	1	4	64	5	40	6		23	23	47	14 Support school.
Sumpter,	frac.	1	1	7	7	5	60	8		19	00	51	50 do
Van Buren,		12	10	1	59	6	26	3		14	75	18	25 do
				2	30	3	29	3				36	00 do
				4	71	9	66	7		29	00	75	00 do
				5	34	3	37	3		12	00		

Digitized by Google

Wayne County—Continued.

Townships.		Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Van Buren,				6	18	12	30	3 months.	$12 40			
	frac.			1	9		6	5½	4 00		$5 00	Repairs.
	frac.			2	18	1	14	4			16 00	Support school.
	frac.			7	40	5	45	3	14 00		50 50	do
	frac.			11	19		19	4	3 80		19 90	do
	frac.			13	10	1	11	6			15 00	do
Romulus,		6	3	1	46	16	57	5½	20 80		37 20	do
				2	31	6	30	6	12 40		27 00	do
	frac.			5	32	3	30	3	14 80		219 00	Build school house.
Plymouth,		18	16	2	88	15	103	11	48 46	$10 00	8 00	Repairs.
				3	41	4	45	4	14 80			
				4	88	5	50	4	20 80		59 00	Support school.
				6	59		67	7	19 80			
				7	35	4	39	9	16 50		40 00	do
				8	35		42	3				
				9	50	7	62	5½	20 00		50 50	do
				10	24	5	29	9	10 80			
				11	58	11	69	10	18 40		66 46	Finishing school house.
	frac.			1	28	21		4	10 40		100 10	Support school.
	frac.			1	4	3	35	3	12 60		60 00	do
	frac.			1	19	8	27	8	9 60		32 00	do
	frac.			2	19	4	55	9	18 19		67 06	do
	frac.			1	31	12	30	9	16 00		10 00	do
	frac.			3	36	9	49	8	16 00			
	frac.			3	17	1	12	3			119 00	To build house.

Digitized by Google

| | | |

Wayne County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Greenfield,			4	42	2	30	3 months.	$11 00			
			7	52		45	4	28 00		$55 00	Support school.
frac.			8 & 11	18	1	19	6	3 96		92 63	do and rent.
			9	34	12	26	6	13 62		105 00	do and house.
			10	43	15	48	6	20 68		155 00	Finish house and support school.
					Washtenaw County.						
Augusta,	11	8	1	40	9	39	4½	19 20			25 attending private school.
			2	26	4	17	6	8 40	$5 00	41 06	Support school.
			4	22	1	18	3	8 80		16 00	
			5	36	4	41	3	16 38			
			6	19		22	3	9 20			
			10	8	8	8	3			39 53	Build school house.
			9	28	3	28	5	10 00			
			11	23	25	25	3	11 39			
Ann Arbor,	15	9	1	13		11	7	6 00			
			5	57	10	35	4	11 20		15 00	Repairs.
			6	20	5	22	2½				
			8	59		41	3				
			11	143	14	139	6	44 00		174 00	Rent and support school.
			15	44	6	41	4	18 66		73 00	Support school.
frac.			3	35	3	20	5½	8 00			
frac.			16	62	70		2			500 00	House and lot.
			2	19		40	3				

Digitized by Google

| | | |

Washtenaw County—Continued.

Townships.	Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher in each.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Northfield,	11	7	1	11	4	13	7	$5 20		$47 50	Support of school.
			2	13		40	3				
			3	13	7	14	5½	6 80			
			4	56	10	66	7			51 60	do
			5	42	2	44	4½	18 80		80 00	do
			6	39	7	46	4	15 60		76 00	do
			7	32	11	38	7	14 60		60 00	do
Pittsfield,	14	10	1	57	15	83	7	24 00		68 91	do
			2	63	9	60	9	18 80		81 70	do
			4	35	7	49	7½	20 60		71 20	do
			5	43	6	44	3	17 20		34 80	do
			6	42	9	52	6	20 80		17 00	do
			7	29	9	38	7½	12 40		50 60	Repairs and support school.
	frac.		2	29			3	8 80			
	frac.		3	10		9	3	4 80		325 00	To build house.
	frac.		7	29	6	26	no app't.				
	frac.		8	33	10	81	3	16 80		19 50	Support school.
Sharon,	9	9	1	63	15	94	10½	27 60		170 00	Repair house and support school.
			2	37	7	40	10	16 40		84 50	do
			3	25	20	30	5½	14 40		44 00	Support school.
			4	35	25	26	9	12 40			
	frac.		5	27	17	40	3	12 80		56 90	do
			6	16	3	32	3	5 60			
			7	18	10	28	6	9 25		64 00	Repair house and support school.
			8	19	7	23	6	6 80		27 70	do

Digitized by Google

												do
Scio,	frac.	15	10	1	9	1	10	7	3	60		
				1	15	2	10	3	4	30	17	20 Support school.
				2	31		24	3			18	00 do
				3	41	4	29	3	19	20	25	80 do
				4	36	12	48	8	14	00	421	44 Support school and build house.
				6	25	4	37	4				
				7	40	12	37	3¾	16	40	30	00 Support school.
				8	38	13	51	8	16	40	64	60 do
				9	74	12	36	9	30	00	20	00 Fuel.
				11	41			6	16	89		
				12	44	6	41	4	11	60	73	00 Support school.
Superior,		10	11	1	47			5¼	20	53	37	92 do
				2	44		46	6¾	35	91	52	09 do
				3	86			8	13	69		
				4	30	3	23	3	15	39	39	25
				5	41	9	51	7	19	25	39	18 do and repairs.
				6	42	8	50	5				
				7	43	11	38	6	7	28	15	40 do
				8	47	8	52	3				
	frac.			1	17	4		6				
	frac.			2	35		21	6				
	frac.			1	11	6	8	7	5	60		
Salem,		15	15	1	47	6	45	3	13	00	67	50 do
				2	60	10	63	7	18	00	52	37 do
				3	49	15	75	7	23	00	70	00 do
				4	48	10	58	6	20	37	46	00 do
				6	31			3	19	50		
				8	30			1st report.				
				9	37	3	22	3	7	80		
	frac.			1	28	2	30	6	10	83	19	34
	frac.			2	27			6	11	70		
	frac.			2	16	4	35	7	6	07	81	00 Repairs and support school.
	frac.			1	25	4	29	3	13	43	142	83 Build house.
	frac.			1	9	3	6	6		87		
	frac.			1	38	12	44	8	13	00	31	00 Support school.
	frac.			2	32	4	55	9	18	09	67	06
	frac.			1	8	7	13	7	3	44		
Sylvan,		9	4	3	25	13	55	3¾	27	80	32	39 Repairs and support school.
				4	30	32	69	3	13	60		

Digitized by Google

Washtenaw County—Continued.

Townships.		Whole No. of districts in said township.	No. from which reports have been made.	No. of district.	No. of scholars between the ages of 5 and 17 in each.	No. attending school under 5 and over 17.	Whole number attending school in each district.	Length of time a school has been kept by a qualified teacher.	Amount of money received from school inspectors by each.	Amount received for use of district library.	Amount of money raised in each district.	Purposes for which it was raised.
Sylvan,				5	16		16	8 months.	$4 00		$56 20	Support school.
				7	48	9	57	3	21 95		71 25	
Saline,	frac.	13	10	1	61		10	3	29 20		37 80	do
				2	22			3	9 63		17 31	do
				3	51		68	10	15 10		89 90	do
	frac.			5	36			6	14 40			
				7	38	7	41	3	12 44		38 56	do
				8	31			7	16 80		46 20	do
	frac.			9	46	7	53	5	16 80		21 69	do
				10	30		25	3			15 00	do
	frac.			13	12	3	15	3			17 00	do
	frac.			14	2		10	3½	5 20		6 00	do
Webster,		12	7	1	41	9	35	6	16 00		44 00	do
				3	33		22	5	15 00		33 00	do
				2	25	29	54	7	8 40		99 81	do and finishing house.
				7	30	22	52	6½	13 60		76 90	do and repairs.
				11	21	10	31	4½				
				12	15	4	13	3	6 00		20 00	do
				4	36	6		6			246 00	do and building house.
York,		15	13	1	68	11	65	3	33 75		42 80	do
				2	61	15	76	7½	26 00		50 01	do
				3	47	3	47	7	20 25		39 71	do
				4	58	6	no app't.					
				5	37	18	55	4	14 23		95 93	do
	frac.			1	15	5	20	6	12 12			

Digitized by Google

	frac.			2	6		6	3½	2 25			8 00	Support school.
	frac.			3	21	2	23	6					
	frac.			4	27	10	81	3	13 92			19 50	do
	frac.			5	21			3	6 70				
	frac.			6	3	3	6	3	1 71			7 00	do
	frac.			7	2			1st report.					
	frac.			11	21			3	11 00				
Ypsilanti,		16	10	2	168		132	10	67 30	$20 00		80 00	do
				4	128	40	168	12	67 82				
				5	16	2	22	3	9 15			36 00	do
				7	34	4	36	3½	13 93				
				8	36	6	167	8	20 30				
				9	26	3	26	5					
				10	10		20	3				112 00	To build school house.
				11	18		43	4	10 00			45 00	Support school.
				13	6	1	22	6				30 00	do
				16	45	4	43	7	19 50			38 50	Support school and repairs.

Digitized by Google

Books used.

Webster's elementary spelling book is used in	548	districts.
Cobb's elementary spelling book is used in	62	do
Town's elementary spelling book is used in	14	do
Emerson's elementary spelling book is used in	2	do
Olney's geography is used in	315	do
Parley's geography is used in	78	do
Woodbridge's geography is used in	47	do
Smith's geography is used in	89	do
Huntington's geography is used in	17	do
Daboll's arithmetic is used in	304	do
Cobb's arithmetic is used in	3	do
Adams' arithmetic is used in	103	do
Smith's arithmetic is used in	119	do
Davis' arithmetic is used in	15	do
Ostrander's arithmetic is used in	31	do
Pike's arithmetic is used in	5	do
Colburn's arithmetic is used in	21	do
Kirkham's grammar is used in	266	do
Murray's grammar is used in	27	do
Smith's grammar is used in	65	do
Brown's grammar is used in	23	do
Greenleaf's grammar is used in	6	do
Hale's history United States is used in	145	do
Juvenile reader is used in	49	do
National reader is used in	7	do
English reader is used in	371	do
Historical reader is used in	20	do
Young reader is used in	4	do
Porter's reader is used in	4	do
Improved reader is used in	3	do
Testament is used in	116	do
Easy lessons is used in	13	do
Goodrich's United States is used in	6	do
Child's guide is used in	9	do
First class book is used in	15	do
Comstock's chimistry is used in	6	do
Comstock's philosophy is used in	18	do
Webster's dictionary is used in	13	do
Walker's dictionary is used in	11	do

Digitized by Google

(B.)

Description of School Lands sold in 1840, *and price per acre.*

Date.	Description.	Section.	Town'p.	Range.	Acres. 100ths.	Price per Acre.	Total amount.
1839.							
Nov. 23,	n½ of n w qr of s w qr,	16	2 s	4 w	20 00	$8 00	$160 00
18.	n w qr of n w qr,	16	2 s	9 e	40 00	8 00	320 00
18.	s w qr of s w qr,	16	2 s	9 e	40 00	8 00	320 00
19.	e½ n e qr & n w qr of n e qr,	16	1 n	10 e	120 00	8 00	960 00
20.	w½ of s w qr,	16	7 s	5 e	80 00	8 00	640 00
29.	e½ of n w qr,	16	1 s	7 e	80 00	8 00	640 00
Dec. 2,	w½ of e ½ of s w qr,	16	5 s	2 w	40 00	8 00	320 00
4,	s w qr of s w qr,	16	8 s	12 w	40 00	8 00	320 00
1840.							
Mar. 6,	s w qr of n e qr,	16	3 s	6 e	40 00	8 00	320 00
April 1,	part of s e qr,	16	3 s	7 w	2 00	8 00	16 00
23,	s w qr of s w qr,	16	7 s	12 w	40 00	8 00	320 00
May 13,	n½ of s e qr,	16	1 s	9 e	80 00	8 00	640 00
23,	s w qr of s w qr,	16	3 s	7 w	40 00	8 00	320 00
July 8,	s e qr of s e qr,	16	1 s	7 e	40 00	8 00	320 00
17.	w½ of n e qr, [qr of s e qr,	16	5 n	10 e	80 00	8 00	640 00
27.	s½ of s w qr, and w½ of s w	16	7 n	6 w	100 00	8 00	800 00
Aug. 22.	s w qr of s w qr,	16	6 s	16 w	40 00	8 00	320 00
10,	n w qr of n w qr,	16	6 n	4 e	40 00	8 00	320 00
Nov. 4,	e½ of s e qr,	16	1 s	10 e	80 00	8 00	640 00
	s e qr of s w qr,	16	6 s	5 w	40 00	8 00	320 00
	n½ of s e qr and s½ of n e qr,	16	3 s	7 w	160 00	8 00	1,280 00
Total quantity of school lands sold, and average price per acre.					1,242 00	$8 00	$9,936 00

School lands forfeited and re-sold.

1839.							
Nov. 30,	e½ of s e qr,	16	4 s	6 e	80 00	8 00	640 00
	n e qr of n e qr,	16	2 s	3 w	40 00	8 00	320 00
	lots No. 34½, of s w qr,	16	2 s	11 w	2 70	40 00	108 00
	lot F, of s e qr,	16	2 s	11 w	50	46 00	23 00
	lot No. 19, of s w qr,	16	6 s	6 w	10 00	37 00	370 00
	lots P and E, of s e qr,	16	2 s	11 w	1 94		650 00
	n w qr,	16	2 s	6 w	160 00	12 50	2,000 00
Whole amount of school lands forfeited and re-sold, and average price per acre.					295 14	$13 93	$4,111 00

Digitized by Google

(C.)

Description of University Lands sold in 1840, *and price per acre.*

Date.	Description.	Section.	Town'p.	Range.	Acres. 100ths..	Price per Acre.	Total amount.
1839.							
Dec. 3.	n w qr of s e qr,	19	2 s	11 w	40 00	$20 00	$800 00
1840.							
Mar. 23,	lot No. 6, of block No. 1, of n w qr,	7	2 s	7 w	41	305 09	125 00
June 24,	all south of Chicago road, on e half of n e qr,	23	6 s	6 w	3 29	20 00	65 80
Total quantity of university lands sold in 1840, and average price per acre.					43 70	$24 96	$1,090 80

Description of appraised University Lands sold in 1840, *and the price per acre.*

Sept. 15,	s w qr,	25	7 s	18 w	160 00	$12 50	$2,000 00
July 23.	e half of n w qr,	23	7 n	12	80 00	2 00	160 00
Sept. 2,	frac lots No. 3 and 4, e half of s w qr,	13	7	12	140 75	10 00	1,407 50
7,	s e qr,	29	4 s	10	160 00	4 00	640 00
	frac lots 6, 7 and 8,	2	6 n	9	136 95	5 00	684 75
	s w frac qr,	27	7	10	101 80	6 00	610 80
	s half of s e qr,	3	6	9	80 00	3 50	280 00
	s w qr,	34	7 s	17	160 00	7 00	1,120 00
	s e qr,	33	7	17	160 00	8 00	1,280 00
10,	n w qr,	23	8 n	11	159 60	7 00	1,117 20
14,	w half of s e qr,	36	5 s	10	80 00	9 00	720 00
	e half of s e qr,	36	5	10	80 00	9 00	720 00
	w half of s w qr,	36	5	10	80 00	8 00	640 00
	e half of s w qr,	36	5	10	80 00	8 00	640 00
	s half and w frac part of n half of s e qr,	25	5	10	137 35	8 00	1,098 80
	n e qr,	36	5	10	160 00	8 00	1,280 00
	s w qr,	30	5	10	160 00	4 00	640 00
10,	n w qr,	3	8	17	160 00	6 00	960 00
	n half of s e qr,	17	8	18	80 00	6 00	480 00
	e half of n e qr,	17	8	18	80 00	7 00	560 00
	w half of n e qr,	17	8	18	80 00	7 00	560 00
	s half of s e qr,	17	8	18	80 00	6 00	480 00
	s w frac qr,	18	8	17	118 17	10 00	1,181 70
	n w qr,	17	8	18	160 00	6 00	960 00
	s e qr,	17	8	17	160 00	10 00	1,600 00
	e half of s e qr,	28	7	17	80 00	2 50	200 00
	w half of s e qr,	28	7	17	80 00	2 50	200 00
	n w qr,	33	7	17	160 00	6 00	960 00
	n w qr,	26	7	18	160 00	4 00	640 00
	n w qr,	14	8	18	160 00	2 50	400 00
	s half of w half and s half of s e qr of n w qr,	22	7	17	60 00	2 00	120 00
	n half of w half and n half of s e qr of n w qr,	22	7	17	60 00	2 00	120 00
	e half of s e frac qr,	34	7	17	74 60	10 00	746 00
	w half of s e frac qr,	34	7	17	74 60	10 00	746 00
	n e qr,	33	7	17	160 00	4 00	640 00
	n e qr,	28	7	17	160 00	3 00	480 00
	s w qr of n w qr,	28	7	17	40 00	3 00	120 00
	e half and n w qr of n w qr,	28	7	17	120 00	3 00	360 00
15,	n e qr,	23	8 n	11	159 20	7 00	1,114 40
	s w qr,	28	7 s	17	160 00	5 00	800 00
Total quantity of appraised university lands sold in 1840, and average price per acre.					4,743 12	$6 21	29,467 15

Digitized by Google

(D.)

List of lands selected for the University of Michigan, which have been approved by the Secretary of the Treasury.

	Town.	Range.	No. of section.
River lots 7, 8, 9 and 10, in the United States reserve of twelve miles square, near Perrysburg, accepted by the university as one section,			1
Sections 24 and 26, in	4 s	19 w	2
do 5,	6	10	1
do 13, 14, 23 and 24,	6	6	4
do 15, 22,	1	1	2
do 27, 28, 29, 32, 33, 34,	2	6	6
do 19,	5	6	1
do 7,	2	7	1
do 24,	5	7	1
do 26,	4	8	1
do 15, 33,	5	9	2
do 5,	6	9	1
do 21, 22, 26, 27, 34,	1	10	5
do 7, 17, 18, 19,	2	11	4
do 28, 30,	4	11	2
do 7, 8, 17,	6	11	3
do 8, 9, 30, 31,	1 n	10 e	4
A lot designated as the ship yard, containing 586 11-100 acres, accepted by the university as one section,	2 s	11	1
Frac. section 21 south and west of St. Joseph river,	7	17 w	1
do 22 do do do	7	17	¾
Sections 28, 33,	7	17	2
All of section 34, lying south and west of St. Joseph river,	7	17	1
Sections 12, 14, 17,	8	18	3
Frac. sections 25, 26, do do	7	18	1¼
do 3, do do	8	17	¾
Sections 17, 18, frac. 21,	8	17	2¼
do 18, 25, 30, 36,	5	10	4
do 30,	5	9	1
do 13, 19, 21, 29,	4	10	4
Frac. s w qr sec. 1, north of Grand river,	6 n	9	¾
do 2, do do	6	9	1
do s e qr 3, do do	6	9	¾
Section 27,	7	10	1
East half of sections 22, and north half of 23, north Grand river,	8	11	1
Fractional do 13, do	7	12	¾
West half do 23, and west half of 26,	7	12	1
Fractional do 12, do	7	14	1
do. do 30, do	10	16	¾
River lots No. 1 and 2, in the 12 mile square near Perrysburg, accepted by the university as one section,			1
			71¼

Digitized by Google

(E.)

Lands selected by the State of Michigan for the use of Schools, in lieu of section 16, under the provisions of the act of Congress, of June 23, 1836.

Township for which the selec'n is made.	Lands selected—Part of.	Sect'n	Town.	Range.	Acres.
6 s r 8 e	fractional,	6	6 s	7 e	621 73
6 do 7	n w frac qr,	7	6	7	155 00
7 do 8	s half and n e frac qr,	7	6	7	425 18
6 do 9	n frac half,	18	6	7	289 10
7 do 9	do	5	6	7	326 92
4 do 1	do	4	6	7	301 53
3 do 7	frac sec,	5	3	7	*622 25
2 do 11	e half and s w qr,	6	2	11	480 00
2 do 11	and n e half,	19	8 n	15	160 00
3 do 11	n w qr and e half s w qr, w half s w qr,	27	7	15	320 00
2 n r 13	n w fr qr, s w fr qr and n w qr of n e qr,	7	6	15	331 68
1 s r 13	n e qr,	6	6	15	159 92
	s e qr,	23	7	15	160 00
	n w qr and n e qr,	33	7	15	320 00
2 n r 14	section,	33	8	15	640 00
3 do 15	s e qr and s w qr,	20	8	15	320 00
1 s r 17 w	s w qr and w half of n w qr,	15	1 s	17 w	240 00
3 do 17	south half,	9	3	17	186 92
2 do 18	s e qr,	36	2	18	160 00
3 do 18	fractional section,	15	3	18	487 70
4 do 19	south half,	12	4	19	168 72
6 do 20	n w qr,	25	6	20	160 00
7 do 21	s e qr,	26	7	20	160 00
2 n r 9 w	e half of n e qr,	17	2 n	9	80 00
2 do 10	w half n w qr,	15	2	10	80 00
3 do 10	w half s w qr,	15	3	10	80 00
1 do 13	s half s w qr,	9	1	13	64 65
1 do 14	n w qr,	15	1	14	160 00
1 do 17	n w qr,	22	1	16	160 00
9 s r 7 e	s e frac qr,	4	6 s	7 e	78 13
9 do 6	s w frac qr,	4	6	7	92 60
9 do 5	s e frac qr,	5	6	7	92 60
9 do 4	s w frac qr,	5	6	7	92 73
9 do 3	s e frac qr,	18	6	7	83 34
9 do 2	east fraction,	1	6	6	54 00
9 do 1	south do	33	5	7	118 70
9 do 1 w	south do	33	5	7	130 60
9 do 2	south do	31	5	7	127 06
9 do 4	east do	12	6	6	53 66
9 do 8 e	s east do	17	6	7	26 24
9 do 8	s east do	36	5	6	210 59
4 s r 11	s e qr, e half s w qr,	1	4	10	40 00
Gro. Island	w half n e qr,	12	4	10	80 00
included.	w half n e qr,	6	4	11	80 00
	w half n w qr,	7	4	11	180 00
2 n r 16 e	n w frac qr,	32	3 n	16	363 67
2 s r 12 e	n w qr of s w qr,	5	6	15	319 84
6 n r 13 e	s e qr and s w qr,	17	8	15	20 00
13 do 16	e half n e qr,	7	6	15	380 00
14 do 16	s e qr and s w qr,	2	6	14	120 00
15 do 16	s w qr,	12	6	14	160 00
4 do 17	n e qr,	12	6	14	160 00
5 do 17	s w qr,	2	7	15	60 00
8 do 17	s e qr,	3	7	15	160 00
	n w qr,	32	8	15	160 00
9 do 17	s w qr,	4	7	15	160 00
10 do 17	s w qr,	26	7	15	160 00
2 do 15	s e qr,	19	8	15	160 00
1 s r 4 w	east half,	17	1 s	4 w	320 00

*Except the n e frac of n w frac qr, 5 70-100.

Digitized by Google

Township for which the sel. is made.	Lands selected—Part of.	Section.	Town.	Range.	Acres.
5 s 8 w	w half n w qr	15	5 s	8 w	80 00
3 12	n e qr	21	3	12	160 00
6 12	n w frac qr	15	6	12	129 94
8 13	s w frac s w qr	9	8	13	86 40
2 14	w half n w qr	15	2	14	80 00
1 15	n e qr	21	1	15	160 00
4 15	s e frac qr	17	4	15	147 60

Digitized by Google

(F.)

Statement of School Lands, the amount for which they were sold, the principal and interest received, and the balance of principal and interest remaining unpaid, December 1, 1840.

Allegan County.

Townships.	Number of acres sold in each township.	Amount sold for.	First payment.	First instalment, December 1, 1838.	Second instalment December 1, 1839.	Third instalment, December 1, 1840.	First interest, to December 1, 1838.	Second interest, December 1, 1839.	Third interest, December 1, 1840.	Whole amount of principal received.	Whole amount of interest received.	Amount of principal due Dec. 1, 1840.	Amount interest remaining due December 1, 1840.
3 n 16 w	78 39	$627 12	$62 71							$62 71		$62 71	$54 [illegible]
2 13	120 00	960 00	96 00							96 00		96 00	82 [illegible]
1 13	40 00	320 00	32 00						$30 00	32 00	$30 00	32 00	
	538 39	1,907 12	790 71						30 00	190 71	30 00	190 71	136 [illegible]

Branch County.

6 s 6 w	640 00	21,450 00	2,298 00	695 55	$107 75	192 00	$759 10	$191 29	623 60	3,293 30	1,573 99	2,093 57	2,498 41
5 s 6 w	240 00	2,740 00	274 00	222 00			227 42	155 33		496 00	382 75	137 00	155 [illegible]
5 s 8 w	40 00	320 00	32 00							32 00		48 00	40 [illegible]
6 s 7 w	40 00	320 00	32 00							32 00		48 06	40 [illegible]
6 s 5 w	280 00	2,240 00	224 00	192 00			159 49	107 53	35 84	416 00	302 86	128 00	91 [illegible]
7 s 7 w	320 00	2,680 00	268 00	140 00			116 34	78 40		408 00	194 74	262 00	198 64
7 s 8 w	240 00	2,140 00	214 00							214 00		278 00	449 07
8 s 7 w	80 90	640 00	64 00							64 00		96 00	134 58
8 s 6 w	135 58	1,084 64	108 46	108 46			89 72	60 74		216 92	150 46	54 23	57 69
8 s 5 w	80 00	640 00	64 00	476 00			35 85	3 71		540 00	39 56	100 00	7 00
	2,095 58	34,254 64	3,578 46	1,834 01	107 75	192 00	1,387 92	597 00	659 44	5,712 22	2,644 36	3,244 80	3,773 07

Digitized by Google

Berrien County.

4 s 19 w	168 72	2,193 36	219 33	219 33			190 30	122 85		438 66	313 15	109 66	122 85
4 s 18 w	640 00	5,240 00	524 00							524 00		786 00	1,112 16
5 s 18 w	370 00	2,960 00	296 00	196 00	56 00		117 99	56 16		483 00	174 15	308 00	410 29
7 s 17 w	565 35	7,475 16	747 51	728 17			642 71	61 00		1,475 63	703 71	393 09	781 24
8 s 21 w	640 00	5,490 00	548 00	280 00			249 94			829 00	249 94	530 00	871 84
8 s 17 w	640 00	7,360 00	736 00	736 00			636 56			1,472 00	638 56	363 00	854 00
	3,021 07	30,708 51	3,070 84	2,099 50	56 00		1,839 50	240 01		5,226 34	2,079 51	2,494 75	4,152 38

Calhoun County.

1 s 7 w	160 00	1,280 00	128 00					60 48		128 00	60 48	176 00	85 89
1 s 8 w	80 00	640 00	64 00	64 00			59 96	35 84		128 00	92 80	32 00	35 84
2 s 3 w	80 00	640 00	92 00							92 00		80 00	96 27
2 s 7 w	80 00	760 00	76 00	76 00			67 64			152 00	67 64	38 00	85 12
2 s 6 w	640 00	6,800 00	880 00	480 00	248 00		405 15	228 48	87 70	1,608 00	721 33	116 00	209 44
2 s 5 w	560 33	8,446 64	844 66	92 00			148 59	40 74		936 66	109 33	1,142 66	1,528 75
2 s 4 w	420 00	3,360 00	336 00	64 00			56 85	76 16		400 00	133 01	336 00	277 16
3 s 4 w	160 00	1,600 00	160 00				142 41	100 80		160 00	243 21	240 00	100 80
3 s 7 w	242 00	1,936 00	195 60			14 40				208 00		32 00	30 24
4 s 5 w	300 00	2,472 00	247 20	64 00			56 85			311 20	56 85	231 20	284 19
4 s 4 w	320 00	3,800 00	380 00	192 00			258 23	105 28		572 00	363 56	382 00	425 07
	3,042 83	31,734 64	3,401 46	1,032 00	248 00	14 40	1,192 73	647 78	87 70	4,695 86	1,928 21	2,805 86	3,158 77

Cass County.

5 s 14 w	200 00	1,600 00	160 00	123 00	109 16		109 39	71 68		397 16	181 07	64 00	97 63
6 s 16 w	200 00	1,600 00	160 00			64 00			40 32	224 00	40 32	64 00	65 90
6 s 15 w	560 00	6,480 00	648 00	373 47			333 45	183 68		1,021 47	517 13	566 53	715 81
6 s 14 w	640 00	9,860 00	1,042 00	623 00			660 60	348 46		1,665 00	1,009 06	328 00	962 14
7 s 16 w	160 00	1,280 00	128 00							128 00		123 00	117 55
8 s 15 w	507 50	4,220 00	486 00	230 00			196 77	128 80		716 00	325 57	371 00	456 11
8 s 16 w	80 00	1,120 00	112 00							112 00		168 00	236 17
8 s 14 w	320 00	2,560 00	256 00	256 00		64 00	204 79	143 36	71 68	576 00	419 83	64 00	71 68
8 s 13 w	80 00	640 00	64 00	64 00			54 75			128 00	54 75	32 00	71 68
	2,747 50	29,360 00	3,056 00	1,674 47	109 16	128 00	1,559 75	875 98	112 00	4,967 61	2,547 73	2,285 53	2,794 07

Digitized by Google

Genesee County.

Townships.	Number of acres sold in each township.	Amount sold for.	First payment.	First instalment, December 1, 1838.	Second instalment, December 1, 1839.	Third instalment, December 1, 1840.	First interest to December 1, 1838.	Second interest, December 1, 1839.	Third interest, December 1, 1840.	Whole amount of principal received.	Whole amount of interest received.	Amount of principal due Dec. 1, 1840.	Amount interest remaining due December 1, 1840.
6 n 7 e	320 00	$2,745 06	$274 60							$274 60		$274 60	$228 19

Hillsdale County.

5 s 2 w	520 00	6,960 00	696 00	$600 00			$485 67	$336 33		1,296 00	$822 50	423 00	437 63
5 s 3 w	160 00	1,280 00	128 00							128 00		192 00	172 52
6 s 4 w	240 00	2,160 00	216 00	152 00			124 42	85 12		368 00	209 54	140 00	128 44
6 s 3 w	320 00	5,320 00	596 00	123 00			80 64			724 00	80 64	216 00	409 71
6 s 1 w	80 00	640 00	64 00		$64 00			40 32		128 00	40 32	32 00	35 84
	1,320 00	16,360 00	1,700 00	880 00	64 00		690 73	462 27		2,644 00	1,153 00	1,003 00	1,184 14

Ingham County.

2 n 1 w	160 00	1,280 00	128 00							128 00		128 00	101 22

Ionia County.

7 n 6 w	100 00	800 00	80 00							80 00			

Jackson County.

1 s 1 e	160 00	1,280 00	128 00							128 00		128 00	183 28
1 s 1 w	80 00	640 00	64 00							64 00		64 00	70 20
2 s 1 w	640 00	6 280 00	628 00				437 28			628 00	437 28	917 00	791 23
2 s 1 e	160 00	1,480 00	148 00	148 00			102 80	82 88		296 00	185 68	74 00	82 89
3 s 1 w	640 00	5,120 00	512 00	128 00	113 86	58 67	177 88	80 64	$72 66	812 53	331 18	384 00	413 46

Digitized by Google

3 s 1 e	160 00	1 280 00	128 00							128 00		192 00	249 92
3 s 2 w	560 00	4 730 00	473 00	281 00	357 44	64 00	169 06	142 54	105 25	1,175 44	416 85	256 50	262 18
3 s 3 w	240 00	1,920 00	192 00	64 00			44 57	82 88		256 00	127 45	224 00	116 48
4 s 3 w	80 00	640 00	64 00		32 00			20 16		96 00	20 16	64 00	80 70
4 s 2 e	520 00	4 160 00	416 00	64 00	128 00		24 56	203 78	235 64	608 00	463 98	384 00	8 56
4 s 1 e	276 27	2,210 16	221 01	78 96			109 61	93 94		293 97	203 55	220 51	156 62
	3,516 27	29,740 16	2,974 01	763 96	631 30	122 67	1,065 76	706 82	413 55	4,491 94	2,186 13	2,938 01	2,415 56

Kalamazoo County.

1 s 10 w	600 00	7.950 00	795 00	84 00			549 62	171 25		879 00	720 87	1,078 50	967 46
1 s 11 w	640 00	5.120 00	512 00		212 76			372 33		724 76	372 33	587 24	416 85
2 s 10 w	640 00	5.130 00	518 00	320 00			231 50			838 00	281 50	457 00	637 67
2 s 9 w	320 00	5 920 00	592 00		111 81		335 67			703 81	335 67	776 19	915 10
3 s 10 w	320 00	2 560 00	256 00	256 00			225 20			512 00	225 20	128 00	256 72
3 s 11 w	400 00	3,840 00	384 00				168 68			384 00	168 68	566 00	601 78
4 s 12 w	600 00	4 960 00	496 00	464 00			336 27	277 20		960 00	613 47	280 00	277 20
4 s 11 w	640 00	8 260 00	826 00	826 00			726 63	464 49		1,652 00	1,191 12	413 00	461 44
4 s 10 w	160 00	1 280 00	128 00	128 00			112 60			256 00	112 60	64 00	143 36
2 s 11 w	622 71	31.197 06	3,361 63	674 71			832 21	478 83	103 21	4,036 34	1,464 25	3 927 19	5,069 92
	4,942 71	76,267 06	7,869 63	2,752 71	324 57		3,618 38	1,764 10	103 21	10,945 91	5,485 69	8,277 12	9,747 50

Lapeer County.

8 n 8 e	145 40	1,163 20	116 32	104 68			86 50	65 95		221 00	152 45	60 80	65 95
6 n 8 e	320 00	2,560 00	256 00	128 00			95 41			384 80	95 41	256 00	370 94
	465 40	3,723 20	372 32	232 68			181 91	65 95		605 80	247 86	325 80	436 89

Lenawee County.

5 s 5 e	400 00	3.200 00	320 00	256 00	64 00		206 47	143 36	103 04	640 00	452 87	192 00	167 70
5 s 4 e	640 00	13 360 00	1,336 00	752 00			838 74	547 68		2,083 00	1,336 42	1,252 00	1,291 20
5 s 3 e	560 00	4,480 00	448 00	64 00		64 00	132 27	224 98	80 57	576 00	437 82	514 00	281 13
5 s 2 e	80 00	640 00	64 00							64 00		64 00	63 79
5 s 1 e	80 00	640 00	64 00							64 00		64 00	55 33
6 s 1 e	400 00	3,200 00	320 00	356 00			198 84	143 36	107 52	676 00	449 72	160 00	23 53

Digitized by Google

Lenawee County—Continued.

Townships.	Number of acres sold in each township.	Amount sold for.	First payment.	First instalment, December 1, 1838.	Second instalment December 1, 1839.	Third instalment. December 1, 1840.	First interest to December 1, 1838.	Second interest, December 1, 1839.	Third interest, December 1, 1840.	Whole amount of principal received.	Whole amount of interest received.	Amount of principal due Dec. 1, 1840.	Amount interest remaining due December 1, 1840.
6 s 2 e	480 00	$3,840 00	$384 00							$384 00		$384 00	$342 56
6 s 3 e	480 00	3,920 00	392 00	$64 00	$128 00		$51 51	$216 92	$71 68	584 00	$340 11	364 00	234 72
6 s 4 e	640 00	9,160 00	916 00	668 00			636 97	257 60		1,584 00	894 57	770 00	894 88
7 s 5 e	80 00	640 00	64 00			$64 00			40 32	128 00	40 32		
7 s 4 e	480 00	3,880 00	388 00	196 00			158 15	35 84	40 74	534 00	234 73	386 00	394 86
7 s 3 e	640 00	6,400 00	640 00	590 40	1,197 00	46 00	282 26	290 10	51 52	2 473 40	623 88	242 00	293 00
7 s 2 e	240 00	1,920 00	192 00		192 00			120 96		384 00	120 96	96 00	107 52
8 s 2 e	120 00	960 00	96 00		64 00			40 32		160 00	40 32	64 00	74 13
	5,320 00	56,240 00	5,624 00	2,946 40	1,645 00	174 00	2,505 21	2,021 12	495 39	10,389 40	5,021 72	4,582 00	4,214 35

Livingston County.

3 n 6 e	320 00	2,560 00	256 00	96 00			69 18	53 76		352 00	122 94	208 00	188 36
1 n 4 e	360 00	2,920 00	292 00			26 12			26 88	318 12	26 88	265 88	218 41
	680 00	5,480 00	548 00	96 00		26 12	69 18	53 76	26 88	670 12	149 82	473 88	406 77

Macomb County.

5 n 13 e	320 00	2,560 00	256 00						228 48	256 00	228 48	256 00	
4 n 12 e	640 00	7,960 00	796 00	552 00			611 75	462 84	462 84	1,348 00	1,537 43	646 00	
4 n 13 e	240 00	1,920 00	192 00	64 00		64 00	98 51	76 36	43 69	320 00	218 56	128 00	119 77
3 n 12 e	220 00	1,880 00	188 00	76 00	188 00	188 00	58 25	116 47	99 96	640 00	274 68		
2 n 13 e	303 83	4,782 66	478 26	157 53			366 99			635 79	366 99	559 85	584 50
	1,723 83	19,102 66	1,910 26	849 53	188 00	252 00	1,135 50	655 67	834 97	3,199 79	2,624 14	1,589 85	704 27

Digitized by Google

Monroe County.

5 s 10 e	387 77	7,010 31	701 03	671 58			146 60		261 17	1,372 61	407 77	485 95	809 46
6 s 9 e	247 34	2,233 79	223 37	75 30			59 35			293 67	59 35	259 76	398 92
7 s 8 e	223 32	1,865 34	186 53	33 00			86 96	13 04		219 53	100 00	246 49	275 78
8 s 6 e	640 00	11,260 00	1,126 00		362 00	32 00	514 24	225 87	35 84	1,520 00	775 95	1,295 00	1,399 40
	1,503 43	22,369 44	2,236 93	779 88	362 00	32 00	807 14	238 91	297 01	3,410 81	1,343 07	2,287 20	2,874 56

Oakland County.

5 n 10 e	80 00	640 00	64 00							64 00			
4 n 11 e	160 00	1,280 00	128 00	128 00			93 77	71 68	71 69	256 00	237 13	64 00	
3 n 11 e	480 00	3,880 00	388 00	255 68	128 00		163 08	80 64		771 68	243 72	194 00	362 88
3 n 10 e	560 00	4,480 00	448 00	128 00			187 53	152 32	19 92	576 00	359 77	412 00	373 32
3 n 9 e	600 00	4,860 00	486 00	99 00			93 17	35 84	76 16	585 00	210 17	454 00	385 62
2 n 7 e	400 00	3,200 00	320 00		41 84			88 15		361 84	88 15	422 16	512 20
2 n 9 e	326 98	2,615 84	261 58	132 02			96 71			393 60	96 71	261 35	406 31
2 n 10 e	160 00	1,280 00	128 00		64 00			86 38		192 00	86 38	128 00	76 16
2 n 11 e	640 00	12,280 00	1,228 00	601 99	480 00		897 80	89 60	130 85	2,309 99	1,118 25	1,162 01	1,240 03
1 n 11 e	160 00	1,280 00	128 00	64 00			46 89	35 84	35 84	192 00	118 57	123 00	83 64
1 n 10 e	200 00	1,600 00	160 00						65 00	160 00	65 00	160 00	66 80
1 n 9 e	640 00	6,240 00	616 00	616 00			447 07	273 28	112 00	1,232 00	832 35	428 00	315 84
1 n 8 e	640 00	5,920 00	592 00	308 00	116 00		225 75	233 57	133 00	1,016 00	592 32	426 00	399 61
1 n 7 e	240 00	1,920 00	192 00		64 00			129 57		256 00	129 57	224 00	116 48
	5,286 98	51,475 84	5,139 58	2,332 69	893 84		2,256 77	1,276 87	644 45	8,366 11	4,178 09	4,463 52	4,340 89

St. Joseph County.

5 s 9 w	160 00	1,280 00	128 00							128 00		192 00	171 87
6 s 11 w	80 00	640 00	60 00							60 00		68 00	64 28
6 s 10 w	400 00	4,880 00	529 40				275 44			529 40	275 44	693 11	590 84
7 s 11 w	360 00	2,880 00	288 00			93 68			125 93	381 68	125 93	240 00	60 48
7 s 12 w	80 00	640 00	64 00							64 00		48 00	67 20
8 s 12 w	40 00	320 00	32 00							32 00		32 00	20 16
8 s 11 w	160 00	1 280 00	128 00	96 00			80 98	53 76		224 00	134 74	98 00	100 88
8 s 10 w	240 00	1 920 00	192 00							192 00		256 00	323 78
8 s 9 w	160 00	2,480 00	248 00							248 00		372 00	520 80
	1,680 00	16,320 00	1,669 40	96 00		93 68	356 42	53 76	125 93	1,859 08	536 11	1,999 11	1,920 29

Digitized by Google

St. Clair County.

Townships.	Number of acres sold in each township.	Amount sold for.	First payment.	First instalment, December 1, 1838.	Second instalment December 1, 1839.	Third instalment, December 1, 1840.	First interest, to December 1, 1838.	Second interest, December 1, 1839.	Third interest, December 1, 1840.	Whole amount of principal received.	Whole amount of interest received.	Amount of principal due Dec. 1, 1840.	Amount interest remaining due December 1, 1840.
7 n 16 e	160 00	$1,310 00	$131 00							$131 00		$196 50	$266 07
7 n 15 e	320 00	2,620 00	262 00							262 00		391 00	527 67
6 n 17 e	160 00	1,280 00	128 00							128 00		192 00	257 78
4 n 16 e	80 00	640 00	64 00							64 00		64 00	52 40
	720 00	5,850 00	585 00							585 00		843 50	1,103 92

Shiawassee County.

6 n 4 e	40 00	320 00	32 00							32 00			

Van Buren County.

4 s 15 w	40 00	320 00	32 00							32 00		32 00	27 71

Wayne County.

1 s 12 e	640 00	5,120 00	512 00				$200 12			512 00	$200 12	768 00	846 72
1 s 10 e	480 00	3,840 00	384 00	$320 00	$128 00	$128 00	250 13	$179 20	$170 24	960 00	599 57		
1 s 9 e	600 00	4,880 00	488 00	136 00	64 00	480 00	106 29	116 48	204 71	1,168 00	276 02		87 73
1 s 8 e	640 00	7,360 00	736 00	686 00	156 00	144 00	538 28	337 14	293 72	1,722 00	1,169 14	282 00	349 64
2 s 9 e	80 00	640 00	64 00							64 00		64 00	40 35
2 s 11 e	252 29	2,656 23	265 62	84 96			170 40	35 84		350 58	206 24	313 47	326 68
3 s 8 e	400 00	3,200 00	320 00		256 00			195 36	107 52	576 00	302 88	192 00	96 92
4 s 9 e	611 09	9,182 43	918 24							918 24		1,378 06	1,870 07
4 s 11 e	80 00	640 00	64 00	64 00	64 00	64 00	50 53	35 84	31 36	256 00	117 73		
	2,783 38	37,518 66	3,751 86	1,290 96	668 00	816 00	1,315 75	899 86	807 55	6,526 82	2,871 70	2,997 53	3,618 31

Digitized by Google

Washtenaw County.

1 s 7 e	520 00	4,160 00	416 00	256 00		160 00	180 60	186 22	76 16	832 00	442 98	128 00	147 84
1 s 6 e	80 00	640 00	64 00							64 00		96 00	124 96
1 s 4 e	640 00	5,120 00	512 00		288 00	29 83			470 17	829 83	470 17	254 17	
2 s 3 e	560 00	4,480 00	448 00							448 00		672 00	564 48
2 s 4 e	600 00	5,160 00	516 00	420 00	78 00	23 37	291 38	175 75	79 78	1,037 37	546 91	303 00	288 55
2 s 5 e	640 00	5,440 00	544 00	292 65	256 00		294 30	143 36		1,092 65	437 66	395 35	407 20
2 s 6 e	640 00	7,900 00	790 00	804 00			509 70	221 76		1,594 00	731 46	381 01	661 10
2 s 7 e	240 00	1,920 00	192 00		64 00			40 32	17 92	256 00	58 24	208 00	163 88
3 s 7 e	606 45	11,369 35	1,138 93	697 64	113 60	43 01	499 10	434 25	63 33	1,993 18	996 68	325 51	666 16
3 s 6 e	360 00	3,000 00	364 00	68 00	32 00		45 17	59 51		464 00	104 68	284 00	250 35
3 s 5 e	160 00	1,320 00	132 00	68 00			48 17	80 94	38 08	200 00	167 19	130 00	42 86
3 s 4 e	240 00	1,940 00	194 00	66 00			92 10	77 28		260 00	169 38	225 00	203 24
4 s 3 e	480 00	4,800 00	480 00	416 00	88 00		280 90	237 95	97 92	984 00	606 77	260 00	228 51
4 s 4 e	640 00	5,120 00	512 00	192 00		32 00	136 05	261 04	207 96	736 00	605 05	512 00	161 94
4 s 5 e	560 00	4,480 00	448 00	192 00	64 00		131 02	151 11		704 00	282 13	384 00	357 08
4 s 6 e	480 00	4,320 00	496 00	272 00			192 76	152 32	17 92	768 00	363 00	296 00	278 02
	7,446 45	71,189 35	7,246 93	3,744 29	983 60	288 21	2,701 25	2,221 81	1,059 24	12,263 03	5,982 30	5,354 04	4,546 17

Statement of University Lands, the amount for which they were sold, the principal and interest received, and the balance of principal and interest remaining unpaid December 1, 1840.*

Calhoun,	1,627 40	40,346 25	4,047 12	2,027 53	280 93	5 00	2,094 62	575 36	482 05	6,360 58	3,152 03	3,667 15	4,631 18
Kalamazoo,	3,913 16	79,344 90	7,934 49	4,489 88	519 84		5,120 92	1,697 82	100 00	12,944 21	6,918 74	6,645 41	9,170 37
Berrien,	3,460 32	34,761 86	3,476 18	599 69	632 00		444 49	423 26	27 00	4,707 87	894 75	1,436 54	2,088 07
Branch,	960 00	20,640 00	2,070 58	1,052 10	40 00		796 24	338 68	154 56	3,162 68	1,289 48	1,776 10	2,598 69
St. Joseph,	1,146 23	13,116 40	1,311 64	177 76			149 94			1,489 40	149 94	908 88	1,175 43
Kent,	858 30	5,374 65	537 46							537 46			
	11,965 41	193,584 06	19,377 47	8,346 96	1,472 77	5 00	8,606 21	3,035 12	763 61	29,202 20	12,494 94	14,434 08	19,663 69

*Read for this table, in the above heading, county for township.

Digitized by Google

Recapitulation.

Counties.	Number of acres sold in each township.	Amount sold for.	First payment.	First instalment, December 1, 1838.	Second instalment, December 1, 1839.	Third instalment, December 1, 1840.	First interest to December 1, 1838.	Second interest, December 1, 1839.	Third interest, December 1, 1840.	Whole amount of principal received.	Whole amount of interest received.	Amount of principal due Dec. 1, 1840.	Amount interest remaining due December 1, 1840.
Allegan,	228 39	$1,907 12	$190 71						$30 00	$190 71	$30 00	$190 71	$136 63
Branch,	2,095 58	34,254 64	3,578 46	$1,834 01	$107 75	$192 00	$1,387 92	$597 00	659 44	5,712 22	2,644 36	3,244 80	3,773 07
Berrien,	3,024 07	30,708 51	3,070 84	2,099 50	56 00		1,839 50	240 01		5,226 34	2,079 51	2,494 75	4,152 38
Calhoun,	3,042 83	31,734 64	3,401 46	1,032 00	248 00	14 40	1,192 73	647 73	87 70	4,695 86	1,928 21	2,805 86	3,158 77
Cass,	2,747 50	29,360 00	3,056 00	1,674 47	109 16	128 00	1,559 75	875 98	112 00	4,967 63	2,547 73	2,285 53	2,794 67
Genesee,	320 00	2,746 06	274 60							274 60		274 60	228 19
Hillsdale,	1,220 00	16,360 00	1,700 00	880 00	64 00		690 73	462 27		2,644 00	1,153 00	1,008 00	1,184 14
Ingham,	160 00	1,280 00	128 00							128 00		128 00	101 22
Ionia,	100 00	800 00	80 00							80 00			
Jackson,	3,516 27	29,740 16	2,974 01	763 96	631 30	122 67	1,065 76	706 82	413 55	4,491 94	2,186 13	2,938 01	2,415 56
Kalamazoo,	4,942 71	76,267 06	7,868 63	2,752 71	324 57		3,618 38	1,764 10	103 21	10,945 91	5,485 69	8,277 12	9,747 50
Lapeer,	465 40	3,723 20	372 32	232 68			181 91	65 95		605 00	247 86	325 80	436 89
Lenawee,	5,520 00	56,240 00	5,624 00	2,946 40	1,645 00	174 00	2,505 21	2,021 12	495 39	10,369 40	5,021 72	4,582 00	4,214 35
Livingston,	600 00	5,480 00	548 00	96 00		26 12	69 18	53 76	26 88	670 12	149 82	473 88	406 77
Macomb,	1,723 88	19,102 66	1,910 26	849 53	188 00	252 00	1,135 50	655 67	834 97	3,199 79	2,626 14	1,589 85	704 27
Monroe,	1,503 43	22,369 44	2,236 93	779 88	362 00	32 00	807 15	238 91	297 01	3,410 81	1,343 07	2,287 20	2,874 56
Oakland,	5,286 93	51,475 84	5,139 58	2,332 69	893 84		2,256 77	1,276 87	644 45	8,366 11	4,178 09	4,463 52	4,340 89
St. Joseph,	1,680 00	16,320 00	1,669 40	96 00		93 68	356 42	53 76	125 93	1,859 08	536 11	1,999 11	1,920 29
St. Clair,	720 00	5,850 00	585 00							585 00		843 50	1,103 92
Shiawassee,	40 00	320 00	32 00							32 00			
Van Buren,	40 00	320 00	32 00							32 00		32 00	27 71
Washtenaw,	7,446 45	71,189 35	7,246 93	3,744 20	983 60	288 21	2,701 25	2,221 81	1,059 60	12,263 03	5,982 66	5,354 04	4,546 17
Wayne,	3,783 38	37,518 66	3,751 86	1,290 96	668 00	816 00	1,315 75	899 86	807 55	6,526 82	3,023 16	2,997 53	3,618 31
	50,196 82	545,067 34	55,470 99	23,405 08	6,281 23	2,139 03	22,633 91	12,781 67	5,697 68	87,296 37	41,163 26	48,595 81	51,886 26

Digitized by Google

(G.)

Classification of Purchasers of University Lands.

54	purchasers	bought	2,215	31	acres, at	$50,495	80	Paid principal,	$5,069	66	1st payment, but no interest.						
15	do	do	950	27	do	15,287	10	do	1,528	71	do and	$1,329	51	interest to	Dec.	1,	1838.
7	do	do	205	55	do	4,451	00	do	445	10	do and	662	82	do	do		1839.
47	do	do	1,881	36	do	47,350	21	do	9,197	26	2 do and	3,885	66	do	do		1838.
60	do	do	1,636	45	do	36,766	80	do	7,433	36	2 do and	5,349	30	do	do		1839.
3	do	do	6	40	do	1,160	00	do	236	60	2 do and	233	09	do	do		1840.
7	do	do	314	75	do	8,360	00	do	2,272	00	3 do and	897	91	do	do		1839.
2	do	do	12	30	do	246	00	do	73	80	3 do and	46	75	do	do		1840.
40	do	do	4,743	02	do	29,467	15	do	2,946	71	1st do appraised lands, sold 1840.						
235			11,965	41		$193,584	06		$29,202	20		$12,404	94				

Classification of Purchasers of School Lands.

254	purchasers	bought	18,720	22	acres, at	$207,183	13	Paid principal	$21,682	59	1st payment, but no interest.						
99	do	do	5,792	65	do	65,831	44	do	6,583	14	do and	$5,030	75	interest to	Dec.	1,	1838.
17	do	do	1,235	00	do	13,330	00	do	1,383	00	do and	1,977	13	do	do		1839.
109	do	do	9,154	99	do	91,830	62	do	18,458	46	2 do and	6,933	15	do	do		1838.
14	do	do	7,304	00	do	83,432	15	do	18,690	49	2 do and	13,052	09	do	do		1839.
16	do	do	2,470	00	do	31,720	00	do	8,325	70	2½ do and	5,426	13	do	do		1840.
48	do	do	3,720	00	do	36,400	00	do	7,380	00	2 do and	5,937	01	do	do		1840.
26	do	do	1,475	00	do	12,231	64	do	3,698	41	3 do and	2,380	00	do	do		1840.
5	do	do	324	96	do	2,608	36	do	1,094	58	4 do and	427	00	do	do		1840.
528			50,196	82		$545,067	34		$87,296	37		$41,404	94				

Digitized by Google

(H.)

Statement of the number of children between the ages of five and seventeen, as reported by the School Inspectors, on which the apportionment is to be made.

	No. district.	No. scholars.
Allegan County.		
Allegan,	1	70
Newark,	1	9
Otsego,	3	90
Plainfield,	5	99
	10	268
Branch County.		
Algansa,	5	121
Batavia,	4	157
Bethel,	2	66
Butler,	4	71
Gilead,	2	83
Cold Water,	7	219
Girard,	7	142
Matteson,	1	47
Ovid,	4	60
Bronson,	3	113
Quincy,	4	154
Sherwood,	4	114
Union,	5	133
	52	1,480
Barry County.		
Johnston,	4	32
Barry,	3	71
Hastings,	4	29
Yankee Springs,	1	25
Thorn Apple,	1	21
	13	178
Berrien County.		
Bertrand,	6	283
Bainbridge,	3	48
Berrien,	3	93
Buchanan,	3	57
Niles,	4	269
New Buffalo,	2	29
Oronoko,	1	30
St. Joseph,	2	102
Weesaw,	2	33
	26	944

Digitized by Google

Clinton County.

Bingham,	3	42
De Witt,	2	61
Ovid,	1	9
Sena,	1	35
Ossowa,	2	23
Watertown,	3	87
	12	257

Cass County.

Calvin,	2	43
Howard,	2	48
Jefferson,	3	142
La Grange,	6	220
Milton,	3	105
Mason,	3	113
Newburg,	2	62
Ontwa,	3	140
Porter,	2	98
Penn,	2	97
Pokagon,	5	121
Silver Creek,	1	46
Vollna,	4	145
Wayne,	1	33
	39	1,413

Calhoun County.

Bedford,	4	36
Le Roy,	5	104
Athens,	2	42
Pennfield,	6	78
Newton,	3	39
Burlington,	5	111
Convis,	3	78
Marshall,	7	393
Fredonia,	5	69
Marengo,	7	247
Tekonsha,	4	100
Eckford,	7	152
Clarendon,	4	153
Sheridan,	4	149
Albion,	6	258
Homer,	7	203
Emmet,	6	165
Battle Creek,	5	301
	90	2,678

Digitized by Google

Eaton County.		
Bellevue,	3	109
Oneida,	2	32
Kalamo,	2	34
Vermontville,	1	39
	8	214
Genesee County.		
Argentine,	1	23
Fenton,	6	218
Flushing,	1	28
Flint,	7	248
Genesee,	5	126
Grand Blanc,	9	246
Kearsley,	1	13
Mundy,	5	71
Vienna,	2	36
	37	1,009
Hillsdale County.		
Adams,	5	125
Allen,	4	82
Camden,	1	8
Canaan,	2	42
Fayette,	3	138
Florida,	1	30
Litchfield,	6	170
Moscow,	7	198
Pittsford,	5	126
Reading,	5	113
Somerset,	7	193
Scipio,	4	122
Woodbridge,	1	15
Wheatland,	6	152
	57	1,514
Ingham County.		
Ingham,	3	54
Aliedon,	1	15
Aurelius,	2	43
Le Roy,	2	13
Vevay,	2	51
Brutus,	3	37
Leslie,	3	68
Stockbridge,	3	66
Onondaga,	4	81
White Oak,	4	74
	27	502

Digitized by Google

Ionia County.		
Ionia,	2	88
Boston,	2	31
Lyons,	4	81
Cass,	1	2
Portland,	3	83
	12	285
Jackson County.		
Concord,	4	153
Columbia,	6	188
East Portage,	3	60
Grass Lake,	10	308
Hanover,	5	128
Henrietta,	3	44
Pulaski,	1	97
Jackson,	9	525
Liberty,	8	164
Leoni,	8	206
Napoleon,	9	370
Rives,	4	180
Sandstone,	5	197
Spring Arbor,	7	225
Springport,	4	65
Tompkins,	2	35
Parma,	5	139
	93	3,084
Kalamazoo County.		
Alamo,	2	72
Brady,	3	176
Charleston,	5	177
Clinton,	3	108
Comstock,	2	113
Cooper,	3	74
Kalamazoo,	2	146
Pavilion,	1	28
Portage,	1	89
Prairie Ronde,	5	184
Richland,	3	100
Texas,	2	32
Ross,	4	100
	36	1,399
Kent County.		
Byron,	3	88

Carried forward,

Digitized by Google

Brought forward,		
Kent,	2	135
Plainfield,	1	38
Paris,	1	31
Walker,	3	181
Vergennes,	5	146
	15	549
Livingston County.		
Green Oak,	7	177
Hamburg,	5	153
Putnam,	6	189
Unadilla,	6	150
Iosco,	6	108
Marian,	7	130
Genoa,	7	174
Brighton,	7	232
Hartland,	4	111
Handy,	1	10
Osceola,	8	150
Howell,	3	73
Tuscola,	3	74
Deerfield,	4	91
Tyrone,	3	78
	77	1,900
Lapeer County.		
Atlas,	6	184
Richfield,	2	36
Bristol,	8	204
Dryden,	5	187
Elba,	1	13
Hadley,	3	54
Lapeer,	5	184
Metamora,	4	76
	34	938
Lenawee County.		
Adrian,	11	449
Blissfield,	5	155
Cambridge,	6	153
Dover,	11	316
Fairfield,	7	143
Hudson,	4	82
Franklin,	12	332
Macon,	7	289
Carried forward,		

Digitized by Google

Brought forward,		
Madison,	8	251
Medina,	7	145
Ogden,	5	80
Palmyra,	5	141
Raisin,	9	358
Rollin,	5	139
Rome,	10	286
Seneca,	4	100
Tecumseh,	9	512
Woodstock,	5	160
	130	4,091
Macomb County.		
Shelby,	10	422
Washington,	10	427
Armada,	9	240
Romeo,	8	340
Macomb,	7	241
Ray,	7	253
Richmond,	6	113
Orange,	3	19
Warren,	4	93
Harrison,	1	52
Lenox,	3	69
Clinton,	6	261
Sterling,	1	109
	75	2,639
Mackinac County.		
Holmes,	2	204
	2	204
Monroe County.		
Lasselle,	5	197
Whiteford,	5	104
Raisinville,	6	155
Milan,	4	81
Monroe,	4	335
London,	5	99
Summerfield,	4	138
Ash,	8	296
Bedford,	7	115
Dundee,	5	177
Erie,	4	173
Exeter,	2	23
Carried forward,		

Digitized by Google

Brought forward,		
Frenchtown,	2	40
Ida,	1	81
	62	2,004
Ottawa County.		
Ottawa,	1	50
	1	50
Oakland County.		
West Bloomfield,	10	261
Orion,	5	139
Independence,	2	63
Avon,	7	411
Oxford,	5	156
Rose,	4	130
Commerce,	5	185
Springfield,	3	97
Holley,	4	122
Lyons,	13	336
Brandon,	5	129
Groveland,	5	167
Addison,	5	124
White Lake,	2	62
Farmington,	13	527
Milford,	7	211
Southfield,	7	247
Highland,	3	150
Royal Oak,	6	234
Waterford,	6	249
Pontiac,	11	532
Novi,	12	438
Bloomfield,	12	446
Oakland,	8	270
Troy,	13	509
	173	6,195
St. Joseph County.		
Burr Oak,	4	97
Bucks,	3	80
Constantine,	4	140
Colon,	3	109
Fawn River,	1	14
Florence,	1	143
Flowerfield,	2	63
Leonidas,	4	117
Carried forward,		

Digitized by Google

Brought forward,		
Mottville,	5	174
Nottawa,	6	139
Park,	3	66
Sherman,	4	207
White Pigeon,	3	165
	43	1,514
St. Clair County.		
Berlin,	5	76
Clay,	3	98
Clyde,	1	35
Riley,	1	12
Columbus,	1	15
China,	5	155
Cottrelville,	2	149
Lexington,	2	36
Port Huron,	2	82
St. Clair,	3	101
	25	759
Shiawassee County.		
Owasso,	1	46
Shiawassee,	5	99
Verona,	3	53
Woodhull,	2	16
Antrim,	1	16
Caledonia,	1	12
Bennington,	9	162
	22	404
Saginaw County.		
Saginaw,	3	153
Tuscola,	1	15
	4	168
Van Buren County.		
La Fayette,	2	87
Hamilton,	1	11
Decatur,	5	98
South Haven,	2	20
Hartford,	1	15
Antwerp,	4	106
Lawrence,	3	58
Clinch,	3	51
	21	446

Digitized by Google

Wayne County.		
Canton,	11	339
Dearborn,	6	266
Detroit,	8	2,093
Brownstown,	4	149
Redford,	12	397
Springwells,	1	64
Sumpter,	1	7
Van Buren,	10	288
Romulus,	3	109
Plymouth,	16	582
Nankin,	7	267
Monguagon,	2	56
Livonia,	11	415
Hamtramck,	7	494
Huron,	5	130
Ecorce,	3	176
Greenfield,	6	229
	113	6,061
Washtenaw County.		
Augusta,	8	202
Ann Arbor,	9	442
Bridgewater,	9	291
Dexter,	4	157
Freedom,	6	268
Lyndon,	1	43
Lodi,	9	337
Lima,	3	111
Manchester,	7	248
Northfield,	7	206
Pittsfield,	9	341
Sharon,	9	249
Scio,	10	385
Superior,	11	442
Salem,	15	485
Sylvan,	4	119
Saline,	10	329
Webster,	7	201
York,	13	327
Ypsilanti,	10	487
	161	5,670

Digitized by Google

Recapitulation.

Counties.	No. of districts.	No. of scholars.
Allegan,	10	268
Branch,	52	1,480
Barry,	13	178
Berrien,	26	944
Clinton,	12	257
Cass,	39	1,413
Calhoun,	90	2,678
Eaton,	8	214
Genesee,	37	1,009
Hillsdale,	57	1,514
Ingham,	27	502
Ionia,	12	285
Jackson,	93	3,084
Kalamazoo,	36	1,399
Kent,	15	549
Livingston,	77	1,900
Lapeer,	34	938
Lenawee,	130	4,091
Macomb,	75	2,639
Mackinac,	2	204
Monroe,	62	2,003
Ottawa,	1	50
Oakland,	173	6,195
St. Joseph,	43	1,514
St. Clair,	25	759
Shiawassee,	22	404
Saginaw,	4	168
Van Buren,	21	446
Wayne,	113	6,061
Washtenaw,	161	5,670
	1,470	48,817

Report of the Regents of the University, to the Superintendent of Public Instruction, December 31, 1840.

Board of Regents, Detroit, December 31, 1840.

SIR—In obedience to a resolution of the board of regents, adopted on the 22d instant, the undersigned fulfill, in their behalf, a requirement of the statute, by presenting their third annual report.

In organizing a board of regents to carry out the views of the legislature in the establishment of a university, it is conceived to have been the primary object of this body, to extend its benefits as widely, and at as early a period, throughout the

Digitized by Google

state, as the wants of the community, and the means at their disposal, would permit. And their attention was, therefore, called at an early day, to the location and establishment of branches of the university, at suitable points, where the branches of a classical and English education, preparatory to the entrance of the students into the parent institution, should be taught. This object has been steadily pursued, not only from its being the appointed means for preparing classes for the final collegiate course, but, from the additional consideration, that, in a new and hastily settled community, it would be one of the best and most practical means, of arousing attention to the value and importance of the plan of education submitted to the people in the organic act, and of thus preparing the public mind to appreciate and foster it. To this end, the most competent men were sought as principals of the branches, liberal salaries paid them, and every facility afforded, in connection with the exertions of the citizens at the respective sites of the branches, to render the means of instruction, both efficient and reputable. The committee on branches, charged with this duty, have encountered an arduous task, in the management of the correspondence, the selection of principals and teachers, the examination of reports, and the pecuniary questions, which required decision and adjustment; and the board owes to it, much of the success which has attended the effort.

It was not conceived that the requirements of the act, and the duty of the board of regents, in this respect, would have been fully performed by merely obtaining instructors of competent literary and natural abilities, disconnected from their moral influence, both in the branches and the communities in which they are located. And it has ever constituted an object, to find men, both as principals and subordinates, who united sound learning and apt habits of instruction, with professional assiduity, good judgment, and practical piety. And the confident hope is indulged, that the importance attached to this principle, in these selections for office, has produced a benign result. Of the seven branches established, five are under the direction of clergymen, and two of laymen of various religious denominations. Two clergymen are also embraced among the assistants and tutors, the whole number of whom, add to their literary qualifications, those arising from religious considerations. The board cannot, they believe, be mistaken in the importance they attach to the connection between learning and morals, science and religion, and at any rate, they would be unjust to themselves, not to express the belief, that success cannot permanently crown the institution committed to their management, after this ligament is severed.

By reference to the catalogue of teachers and students, herewith submitted, (marked A,) it will be perceived that twenty

Digitized by Google

teachers and professors of all grades, have been employed during the year, who have instructed an average number of two hundred and thirty-six scholars, in the various branches of classical and English literature. A steady increase of the number has taken place in the respective terms for the year, the last and highest of which numbers two hundred and forty-seven. These students have been distributed in seven branches eligibly located, at some of our most promising villages and towns, in various parts of the state. A respectable portion of them have studied the languages and higher branches of mathematics; and the proficiency evinced, has been, generally, such as reflects credit, both upon the instructors and pupils. At four of the branches, namely, at Monroe, White Pigeon, Niles, and Tecumseh, there have been female departments under appropriate instructors, where English branches only have been taught. The effect of home schools in this department, has been propitious, and they constitute a branch of higher instruction, contemplated by the act, which is highly appreciated by the inhabitants. In view of the whole amount of instruction furnished—its character and distribution, it may be asserted, that in no previous year, has the institution, through its branches, rendered equally important service to the state.

While the board has devoted so large a share of its attention to the branches, it has not overlooked the paramount duty connected with the parent institution at Ann Arbor. During the year, four professor's dwellings, of a substantial, appropriate and classical model, have been finished and prepared for occupation at the university site—and the main building commenced, and carried forward with spirit. This building has been carried to its heighth, and roofed, and is now in process of completion, and will, it is anticipated, be finished, and ready for occupancy in the autumn of 1841. In addition to which, the grounds, which embrace a quadrangular area of forty acres, have been inclosed in a neat and substantial manner, and other improvements made.

One of the professors' buildings has been temporarily appropriated to the reception of the cabinet of natural history, which has been provided, or is in the process of accumulation, for the use of the professors and students in its various departments. And these collections are about to be opened and arranged under the direction of Dr. Houghton. It is known, that early after the organization of the board of regents, they laid a foundation for this collection, by the purchase of the mineralogical cabinet of Baron Lederer of Austria, which is supposed, so far as it affords specimens representing the mineral kingdom, not to be excelled on this side the Atlantic. To this, has been added, the extensive and valuable collections in geology, mineralogy, botany and zoology, made within the geographi-

Digitized by Google

cal area of Michigan, by the state geologist and his exploratory corps. This collection is due to the forecast of the legislature, who directed their attention to the subject, at one of their earliest sessions, after the admission of the state into the Union. The specimens are the result of an assiduous reconnoisance of three years' continuance, embracing all parts of the state, from the southern and eastern agricultural counties, to its farthest northern and western limits on Lakes Huron and Superior. And it may be pertinent to add, that much of the information, thus brought to light, is believed to be of practical importance, aside from the value of the specimens, as illustrations of the principles of science.

Dr. Gray was authorized to visit Europe, immediately after his appointment, for the purpose of advancing the institution in the respective departments committed to him, and was furthermore commissioned to make the incipient purchases for a library. The sum of five thousand dollars, placed at his disposal, for this object, has been judiciously laid out by him, in the execution of this commission. Three thousand seven hundred and seven volumes, have been received and opened at Ann Arbor, for the character and value of which, the committee beg leave to refer to a report accompanied by a catalogue, herewith submitted, (marked C,) which was made to the board at a meeting convened on the 22d inst.

The disbursements made during the year, designating the several heads of expenditure, a comparative schedule of the cost of sustaining the branches, and the general state of the funds, are exhibited in a series of fiscal tables, herewith inclosed, (marked B,) which denote the facts referred to. It was impossible that the estimates and anticipations entertained at the enactment of the organic law, establishing a university, at the heighth of the general fiscal crisis of 1836–7, should not have partaken, in some measure, of the excited and over-sanguine spirit which characterized all fiscal calculations of the time. And the undersigned would not fully acquit themselves of their duty to the board or the community, in closing this report, without adverting to the fact, that the receipts for lands sold, and the instalments and interest accruing thereon, have fallen short of the estimates. Acting on the principle which is believed to be true, that intellectual labor in all the departments of instruction, should be well paid, and encouraged in carrying it out, by the actual condition of the permanent funds of the institution, liberal salaries were awarded to the principals of the branches and professors, (so far as appointed,) and have been paid without delay or deduction, to the present time. And they cannot but regard this course of policy, as one of the causes of the actual efficiency and success which has marked the course of instruction generally, at the branches. These

Digitized by Google

salaries have been paid, without respect to the number of students taught and enrolled on the catalogues of the branches, each principal of which, has been held accountable for the amount of tuition fees received, according to the rules and the amount of tuition per term established by the regents, receiving from the latter the stipulated salary. That the branches, although affording a sound and reputable description of instruction, have been maintained at a comparatively high expense to the parent institution, is not to be denied; and it is a question in view of the prospective and diminishing state of the funds, and the increasing demands of the university at its central point, whether the same system should be indefinitely continued, or a connection established between the amount of salary paid and the numbers taught. Disconnected from the question of finance, sound principle is thought to forbid any respect to this relation. A teacher's best abilities are as fully required to teach a few as many. Even the *time* he devotes in the former case, is out of proportion, and in excess to the diminished number of his pupils, and were it not, he is ready and willing to devote the whole number of hours daily to his classes, which he owes to the public, under circumstances of the fullest attendance of scholars.

We have arrived at a point in the establishment of the institution, when the organization of a faculty at Ann Arbor, and the opening of the university proper, is a consideration of moment, and the hope is entertained, that this may be brought about before the close of another year. That it is expedient to attempt such an organization without appointing a full faculty, admits of no doubt. A limited number of professors would temporarily answer all the purposes of the incipient and limited classes, and the duties of chancellor could be appropriately assigned, to be performed ex-officio, agreeably to the principles of a resolution adopted by the regents in the winter of 1838. Advanced as the branches are, in the means of instruction, the instances are not single, in which students who have gone through the preparatory course, have gone into other states to complete their education, and we have no doubt from the facts before us, that a respectable and adequate number of students can be enrolled for the final course at the university, as early as the main building for recitation and lecture rooms and dormitories, now in progress, is completed. To accomplish this, however, with *our present funds*, without crippling the branches, or devising some additional means for their support, from the surrounding communities, will not be of easy attainment. While the permanent funds of the institution, are of undiminished intrinsic value, and confidence is felt in the final ability of the purchasers of university lands, to pay up their instalments and interest, there need be no well grounded ap-

Digitized by Google

prehension that the present annual receipts, from these sources, will be eventually diminished. Nor can there be more reason to fear, that the prices of the valuable and well selected portion of the lands still held by the institution will not rise, and sales be resumed with the returning prosperity of the country. Whether sources thus really ample, and which may be eventually relied on without fallacy, constitute grounds, in the present state of the institution, to justify the anticipation of their proceeds by a further loan, in order to consummate an object so closely indentified with the cause of education in the state, is a question that has suggested itself to the board, and it is one that will receive all the consideration its merits.

Respectfully submitted.

HENRY R. SCHOOLCRAFT,
Z. PITCHER,
GEO. DUFFIELD,

Committee.

Digitized by Google

(A.)

A catalogue of the professors and teachers employed or holding appointments under the board of regents of the university of Michigan, during the year 1840, *together with the number, names, and studies of the scholars, at each branch, during the respective terms.*

I. Professors and Teachers.

Names.	Appointments.	Localities.
Dr. Asa Gray,	Professor botany and zoology,	Central institution at Ann Arbor.
Dr. Douglass Houghton,	Professor of mineralogy and zoology,	do do
George P. Williams, A. M.,	Principal branch of the university,	Pontiac.
Rev. Samuel Center, A. M.,	do do do	Monroe.
Sabine Hough, A. B,,	Assistant do do	do
Rev. C. W. Fitch, A. M.,	Principal do do	Detroit.
Wm. A. Howard, A. B.,	Assistant do do	do
Rev. Samuel Newberry,	Principal do do	White Pigeon.
Rev. M. Meigs, A. M.,	Tutor 3d term, do do	do
A. C. W. Gray,	do 1st, 2d " do do	do*
B. L. Baxter,	As. tu'r 2d t'rm, do do	do†
John Ogden,	As. " 3d " do do	do
Rev. Joseph Whiting,	Principal do do	Niles.
Rev. N. M. Wells,	Assistant do do	do
Andrew Harvie,	Principal do do	Tecumseh.
Benj. L. Baxter,	Assistant do do	do
Rev. W. Dutton,	Principal do do	Kalamazoo.

*Resigned 15th August. † Now at Tecumseh.

Digitized by Google

Female Assistants.

Names.	Appointments.	Localities.
Miss Isabella McQueen, Miss Jane Kelly, Miss Mary Bates,	First and second terms, 1840.	Monroe.
Miss Malvina M. Snow,	do do do	Tecumseh.
Miss Maria Stephens,	do do do	Niles.

II. Aggregate number of students in each department, taught at each branch, during the respective terms.

Localities.	First term.	Second term.	Third term.	Classical department.	English department.
Pontiac,	19	22	15	15	
Monroe,	78	61	31	15	16
Detroit,	25	21	25	20	5
White Pigeon,	50	51	52	19	13
Niles,	27	38	47	21	26
Tecumseh,	23	40	56	22	34
Kalamazoo,			21	5	16
	222	233	247	117	130

Digitized by Google

III. Register of the names of all the Students who have attended at the Branches, during the year 1840, *denoting their place of residence:*

Branch at Pontiac.

James T. Barber,	Pontiac.
Edward J. Bartlett,	Independence.
George C. Beach,	Pontiac.
Oliver N. Beach,	do
Seth C. Beach,	Flint.
James Burnet,	Waterford:
Samuel Chamberlain,	Pontiac.
William Cornell,	do
Howard A. Crumb,	do
Joseph Donaldson,	Commerce.
Charles C. Hascall, jr.,	Flint.
Ira Hodges,	Pontiac.
Jacob J. Hosmer,	do
Charles A. Howard,	do
Charles J. Hunt,	do
Charles S. Hunt,	Waterford.
James McCabe,	Saginaw.
John A. Nightingale,	Lapeer.
John H. Parks,	Pontiac.
Benjamin F. Parks,	do
Calvin C. Parks, jr.	do
William H. Parks,	Troy.
William W. Patrick,	Pontiac.
William Perry,	Independence.
William W. Phelps,	Pontiac.
George Raymond,	do
John Reed,	Springfield.
George H. Satterlee,	Troy.
Alonzo Sherwood,	Pontiac.
William C. Snell,	Oakland.
Henry H. Stevens,	Mt. Clemens.
Joel P. Toms,	Troy.
George Vowels,	Independence.
James O. Whitmore,	Pontiac.
James Williams,	Saginaw.
Robert B. Reed,	Springfield.

Branch at Monroe.

Walcott Lawrence,	Monroe.
Edwin Lawrence,	do
Henry Lawrence,	do
Francis Lawrence,	do
Wolcott W. Lawrence,	do
Columbus Godfroy,	do

Digitized by Google

Frederick Godfroy,	Monroe.
John D. Darrah,	do
Charles Southworth,	do
Abraham E. Peltier,	do
William Garwood,	do
James Cole,	do
Richard K. Frost,	do
George A. Skinner,	do
James D. Skinner,	do
Elisha P. Ferry,	do
James B. Kellogg,	do
Horace Kellogg,	do
Van Horn Miller,	do
Sidney D. Miller,	do
Arthur Miller,	do
Charles A. Clark,	do
Edwin Anderson,	do
Samuel Norton,	do
Philip P. Loranger,	do
Cyrus P. Adams,	do
John Morehouse,	do
Horace Morehouse,	do
Pierson Morehouse,	do
Gershom Buckley,	do
Edward T. Buckley,	do
Julius S. Morton,	do
Phineas D. Spalding,	do
Chauncey P. Spalding,	do
Peter S. Gale,	do
Lewis Lambert,	Ohio.
Charles J. Wood,	do
Calvin M. Johnson,	do
Seth Brown,	Monroeville, O.
Nelson Haight,	Chicago, Ill.
Jonathan Brower,	Monroe, Mich.
Frederick Wyatt,	do
Lewis Carabin,	do
Charles W. Noble,	do
Francis Clarke,	do
Thomas Card,	Toledo, Ohio.
Hannibal L. Stanley,	Erie, Penn.
James D. Wright,	Jonesville, Mich.
Julius H. Beardsley,	Monroe.
Daniel Strong,	do
William O'Connor,	do
Dwight Jackson,	do
Charles Meigs,	do
Winfield Smith,	do

Digitized by Google

Philo E. Doolittle,	Monroe.
P. A. Barker,	Buffalo, N. Y.

Female Department.

Harriet Conant,	Monroe.
Martha Conant,	do
Helen Conant,	do
Sarah Conant,	do
Mary A. Wing,	do
Elizabeth Wing,	do
Cornelia M. Gaylord,	do
Mary M. Frost,	do
Lucretia N. Frost,	do
Jane E. Frost,	do
Frances E. Landon,	do
Jane C. Burch,	do
Charlotte L. Hawley,	do
Agatha E. Miller,	do
Sarah E. Cole,	do
Eliza Cole,	do
Helen Noble,	do
Maria C. Prentice,	do
Samantha Humphrey,	do
Harriet F. Smith,	do
Elvira P. Smith,	do
Teresa Scanlin,	do
Jane T. Rabineau,	do
Eliza A. Skinner,	do
Sarah V. Center,	do
Mary Belle Center,	do
Lucinda Barber,	do
Susan Aldridge,	do
Orpha Bates,	Ionia, Mich.
Matilda D. Peltier,	Monroe.
Mary E. Peltier,	do
Elizabeth P. Johnson,	do
Marie E. Humphrey,	do
Mary Jane Magee,	New York.
Mary French,	Jonesville, Mich.
Margaret McQueen,	Schenectady, N. Y.
Laura Harvey,	Monroe.
Mary Bill,	do
Josephine B. Fish,	do
Harriet D. Norton,	do
Caroline Lawrence,	do
Julia Lawrence,	do
Margaret Murphy,	do
Sarah Murphy,	do

Digitized by Google

Abigail Clarke,	Monroe.
Martha Darrah,	do
Elmira Morehouse,	do
Harriet Adams,	do
Abigail Jackson,	do
Martha Goff,	do

Branch at Detroit.

Robert F. Hunt,	William M. Dean,
Edward M. Pitcher,	Thomas P. Watson,
Edward C. Walker,	Anson Burlingame,
Edmund G. Desnoyers,	William D. Whiting,
William B. Wesson,	George Cooper,
Augustus P. Cole,	Henry A. Wight,
LaFayette Knapp,	Theodoric R. B. Palmer,
Charles S. Cole,	Henry Howard,
George S. King,	Hazen Titus,
Lucretius H. Cobb,	J. C. Devereaux Williams,
James B. Witherell,	William A. McDonald,
John T. Walker,	Charles Brewster,
Lewis F. Jasperson,	Henry Mizner,
Charles D. Moran,	Harlow B. Godard,
Henry A. Schoolcraft,	John H. Smith,
Thomas G. Heartwell,	Walter P. Doe,
Thomas Henry Jasperson,	Daniel Merriman,
Horace Roberts,	John McMillan,
William D. Wilkins,	Thomas B. Davis.

Branch at White Pigeon.

Marcus McMillon,	St. Joseph co., Mich.
Enos Foreman,	do
James H. Voorhies,	do
Martin A. Shellhouse,	do
Edwin G. Shellhouse,	do
Ithuriel McMillon,	do
Edmund C. Shellhouse,	do
Frederick Eugel,	do
Henry Ullman,	do
Morris Robinson,	do
James T. Hay,	do
James H. Rowen,	do
Orren H. Loomis,	do
Henry Barnard,	do
James W. Cathcart,	do
Samuel C. Laird,	do
David Knox,	do
John Vandusen,	do
Isaac Vandusen,	do
Albro McCagg,	do

Digitized by Google

Richard Wells,	St. Joseph co., Mich.
Merrills Clark,	Lagrange co., Ind.,
Elutherus Clark,	St. Joseph co., Mich.
Samuel White,	do
Augustus Wilber,	do
Benj. F. Sherman,	Ionia county, Mich.
Rollin Coyndon,	Elkhart co., Indiana.
William Stead,	Lagrange co. do
William Bell,	Ionia county, Mich.,
Ephraim Sixby,	St. Joseph co., do
Gustavus K. Gerrey,	do
Levi Sanders,	Branch co., do
Caleb Ercanbrack,	St. Joseph co., do
John Cook,	Elkhart co., Indiana.
Oliver McGaffey,	St. Joseph co., Mich.
Henry Steele,	do
Julius Wilber,	do
George Doolittle,	St. Joseph co., Ind.,
Andrew Osborn,	St. Joseph co., Mich.
Robert W. Wallace,	Lake county, Ind.,
William W. Stewart,	St. Joseph co., Mich.
Charles Childs,	do
Marshall Cooley,	Kalamazooo do
Armontage Moore,	St. Joseph co., do
George Rowley,	do
John Simonton,	Elkhart co., Indiana.
Telemachus Simonton,	do
Anthony Manning,	do
George Tibbets,	do
Ambrose Moore,	St. Joseph co., Mich.
Maro Wheeler,	Elkhart co., Indiana.
Horace Wheeler,	do
Samuel Smith Etheridge,	Branch co., Mich.
Abram G. Martin,	Elkhart co., Indiana.
Henry Baxter,	St. Joseph co., Mich.
Curgus M. Shellhouse,	do
Jacob Parker,	do
Isaac Vandeventer,	Lagrange co., Ind.
George Welling,	St. Joseph co., Mich.
Jacob Eugel,	do
Euphronius Wheeler,	Elkhart co., Indiana.
Joseph V. Yates,	New York.
Edward Pitcher,	Detroit, Michigan.

Female Department.

Maria Parthenia Moore,	St. Joseph co., Mich.
Dorcas McCagg,	do
Frances Bryan,	do
Lois Bryan,	do

Digitized by Google

Helen Baxter,	St. Joseph co., Mich.
Maria Roberts,	do
Julia McGaffey,	do
Joanna A. Merriman,	Lagrange co., Ind.
Elizabeth Watson,	St. Joseph co., Mich.
Amanda Corbon,	do
Elizabeth Frances Sanburn,	do
Sarah Draper,	do
Nancy M. Loomis,	do
Aurilla Bean,	do
Sarah Fergerson,	do
Ann McKenny,	do
Sarah Maria Clark,	do
Caroline Barton,	Cass county, Mich.
Sarah Louisa Kerr,	St. Joseph co., Mich.
Harriet Steele,	do
Cynthy Wallace,	do
Cynthy Tibbets,	Elkhart co., Indiana.
Catharine Manning,	do
Mary Haywood,	St. Joseph co., Mich.
Sarah Ann Etheridge,	Branch do
Eleanor Burnelle,	St. Joseph co., Mich.
Salina Shellhouse,	do
Laura Jane Finch,	do
Emily Auburn Moore,	do
Evelin Fitch,	do
Louisa Haywood,	do
Jane White,	do
Sarah Parker,	do
Francis Henshaw Newberry,	do
Julia Holabird,	do

Branch at Niles.

Simeon B. Berry,	Niles.
William H. Chipman,	do
Milton Cowley,	do
Charles Cummings,	do
Eliazer S. Dana,	do
Henry W. Dana,	do
Alfred L. Deniston,	do
Edward P. Doane,	Howard.
Oscar M. Dunning,	Ontwa.
Samuel W. Elliott,	Howard.
Jerome B. Fitzgerald,	St. Joseph.
William Fitzgerald,	do
Theodore Fowler,	Niles.
Robert Fowler,	do
Charles W. Graves,	do
David H. Gray,	Bertrand.

Digitized by Google

Adna Griffin,	Bertrand.
Lucien Heath,	Howard.
Albert Heath,	do
Giles Heath,	do
Satterlee Hoffman,	Niles.
John M. Hull,	do
George Hunter,	do
Robert H. Huston,	do
William S. Kennedy,	Bertrand.
Solon Lacey,	Niles.
Peter K. Lyon,	do
Elisha L. Mills,	Bertrand.
John L. Perkins,	Niles.
William Purchas,	do
George Purchas,	do
Uzziel Putnam,	Pokagon.
William P. C. Whitney,	Niles.
George W. Williams,	do
John C. Williams,	do

Female Department.

Elizabeth Barney,	Niles.
Mary J. Brown,	do
Mary T. Boughton,	do
Maria C. Bush,	do
Florence E. Dickson,	do
Mary G. Dickson,	do
Maria L. Fitzgerald,	St. Joseph.
Emily Fowler,	Niles.
Sophia Gordon,	do
Susan Hull,	do
Amelia F. Hoffman,	do
Hannah A. Lacey,	do
Julia A. Lewis,	do
Frances Mills,	Bertrand.
Mary Mills,	do
Harriet C. Perkins,	Niles,
Ruth A. Read,	do
Sarah E. Rood,	do
Mary J. Rood,	do
Charlotte J. Treat,	Three Rivers.
Anna B. Whiting,	Niles.
Caroline S. Wilson,	do

Branch at Tecumseh.

Oscar G. Adams,	Halstead H. Hoeg,
Jerome Allen,	Julius Holmes,
Charles Backus,	Andrew J. Horton,
John C. Baugham,	Flavius J. Hough,
Joseph W. Bird,	Andrew Hunter,

Digitized by Google

Arthur Bissell,
Dewitt D. Blanchard,
Jacob H. Camburn,
Myron B. Camburn,
William Brown,
Hezekiah Clark,
Dwight Cleveland,
Benjamin Cutter,
Charles Demmon,
Charles L. Dibble,
Robert Dubois,
Alvin Earl,
Joseph Esterbrook,
Henry M. Finch,
W. N. Finch,
Daniel B. Green,
Humphrey Griffith,
James Hale,
Sir Mathew Hale,
James H. Hewitt,
Henry Jasperson,
James D. McAllister,
Lewis R. Morris,
James E. Pittman,
Samuel E. Pittman,
William Potter,
A. N. Prentice,
John Weir,
William J. Wainright,
Francis Welch,
James H. Wheeler,
Charles Wood,
Roswell C. Wright,
George P. Tindall,
Franklin D. Smith,
Philip V. Smith,
Myron W. Sweet,
A. G. Darwin.

Female Department.

Marion Backus,
Delia J. Baldwin,
Vesta D. Blanchard,
Elizabeth Bissell,
Josephine Brown,
Mary Farrington,
Jane C. Faxton,
Louisa H. Gilbert,
Ann Eliza Grant,
Cornelia C. Hewitt,
Eliza Hewitt,
Mary Hoeg,
Sarah Holloway,
Julia Holmes,
Mary J. Hough,
Angeline Lattimer,
Julia Lattimer,
Catharine Pittman,
Amanda Potter,
Sally Potter,
Anna M. Ring,
Louisa Welch,
Eliza Wood,
Jane Davies.

Notes by the Committee.

University.—April 8, 1840, the committee on appointments, were instructed to correspond with Dr. Gray, respecting suspension of salary. May 5, said committee reported that they had executed that duty, and that Dr. Gray had consented to a suspension for one year.

Dr. Houghton having received his appointment, on the condition of his salary commencing after the termination of his services as state geologist, and being still engaged in the latter duties, no payments to him have been made, in his capacity of professor in the university.

Pontiac branch.—All the students taught at this branch are in the classical department. The principal, reports that the

Digitized by Google

time devoted by him, daily, to their instruction, is six hours. Of the 15 students reported in the 3d term, 12 were in attendance during the first half of the term, and 14 the last half. Several, who entered, were compelled to withdraw on account of sickness. The total amount received for tuition, third term, is $59, of which, $5 were remitted.

Monroe branch.—The principal reports 24 of the students in the male department, as engaged in the study of languages; 26 in pure and mixed mathematics, and 29 in English and universal arithmetic. The female department was discontinued in August, for want of a suitable building.

Detroit branch.—The principal reports the following appropriation of time in the daily studies.

Time devoted by all, daily, 8½ hours.
Time devoted by principal, 5½ "
Time devoted by tutors, 3 "
Number of teachers, 2.
English department, 5, third term.
Classical department, 20 "

Total number, 25

Of these 25, six have paid for half the term, and one left at the middle of the term, without paying. The only deficiency, with this exception, has been of a year and half's standing. Three have not been charged tuition, *one* of whom attended the whole term, the other *two*, but a part.

White Pigeon branch.—Several changes of the assistant teachers were made during the year, and one transfer to another branch. The Rev. P. W. Warriner acted as tutor, half of the first term. Mr. A. C. W. Gray acted in the same capacity for part of the first and second terms; Mr. Baxter, as assistant tutor the second term, and Mr. John Ogden, as assistant tutor the third term. A number of students taught at this branch were from Indiana.

Niles branch.—Of the whole number of students at this branch, 21 are designated on the catalogue, as pursuing classical studies. The female department numbers 22.

Tecumseh branch.—Mr. Baxter was tranferred from White Pigeon to this branch, at the commencement of the third term. Previous to this date, the duties of tutor had been performed, for a part of the time, by Horace L. Skinner, and subsequently by James L. Smith.

Kalamazoo branch.—This branch was revived in September last, after a year's interruption, and placed under the supervision of the Rev. William Dutton. No catalogue of the students has been received at the date of this report. The total number is reported at 21.

Digitized by Google

(B.)

I. General abstract of all the expenditures made by the board of regents on account of the university of Michigan, during the year terminating on the 31st December, 1840, as exhibited on the books of the secretary of the board.

1840.

	Objects of expenditure.	Amount.
Jan. 3.	Joseph Whiting, salary as principal, Niles branch, term ending Dec. 24, 1839,	$400 00
4.	Samuel Center, one third year's salary, principal, Monroe,	391 00
	Isabella McQueen, one third year's salary, branch, Monroe,	82 00
	Jane Kelly, 1 third year's salary, branch Monroe,	150 00
	S. Hough, half first term, 1840, do do	100 00
	H. Lum, contract for university buildings,	2,500 00
Feb. 21.	C. W. Fitch, salary to May 16, 1840,	375 00
Mar. 7.	William A. Fletcher, expenses attending meetings of board, at sundry times,	48 00
	Building committee, digging well,	68 00
April 1.	Sundry members board, expenses to Ann Arbor, at meetings of board, postage, account of Dorr, Webb & Co.,	54 68
10.	G. P. Williams, salary, first term, 1840,	400 00
13.	E. Farnsworth and others, attending meetings of board at Ann Arbor,	59 50
14.	H. Lum, contract for professor's houses,	2,500 00
18.	S. Newberry, balance of salary due,	238 45
	Joseph Whiting, salary for term ending April 9, 1840,	300 00
21.	A. Harvie, salary, second term, 1840,	350 00
22.	S. Center, one third years' salary, balance,	289 16
	Isabella McQueen, one third years' salary, teacher, balance,	70 00
	Jane Kelly, one third years' salary, teacher, balance,	130 00
	Asa Gray, years' salary to 17th July 1840,	1,500 00
May 14.	Chester & Stringham, freight on books,	173 79
	H. Lum, charges on books to Ann Arbor,	45 36
15.	David McCormick, cedar posts,	178 00
18.	C. W. Fitch, salary to August 16, 1840,	375 00
19.	Dawson & Bates, printing,	13 00
20.	H. Lum, materials for main buildings,	2,000 00
	Carried forward,	$

Digitized by Google

		$
	Brought forward,	
May 21.	John Daily, transportation of posts to railroad,	2 00
June 2.	A. Ten Eyck, salary as secretary,	100 00
3.	M. W. Gray, teacher, White Pigeon,	200 00
15.	S. Newberry, balance salary, first term, 1840,	144 63
22.	A. Harvie, advanced salary, second term, 1840,	50 00
27.	Chester & Stringham, freight, four boxes books,	21 77
	H. Lum, contract on account main building,	2,000 00
	C. C. Trowbridge, president, pro tem., interest due on state stock, loaned university,	3,060 50
30.	Barstow & Lockwood, services attending before commissioners on university lands, at Niles, and disbursements,	160 50
July 9.	H. Lum, main buildings,	2,000 00
	do professor's houses,	1,000 00
	A. Harvie, balance salary second term, 1840,	56 00
Aug. 1.	C. W. Fitch, salary to Nov. 16, 1840,	375 00
	Z. Pitcher, and others, expenses to Ann Arbor, at third quarterly meeting,	24 75
3.	M. Meigs, advance salary, teacher for second term, 1840,	100 00
4.	M. & L. Horigan, digging well,	150 00
5.	G. P. Williams, balance salary for second term, 1840,	119 00
12.	S. Hough, balance salary second term, and advance on third term, 1840, teacher, Monroe,	175 00
	S. Center, one-third year's salary,	375 74
13.	S. Newberry, balance salary to August 6, 1840,	300 00
15.	Joseph Whiting salary to August 6, 1840,	400 00
	Chester & Stringham, transportation of goods for university,	153 14
18.	H. Lum, main building,	3,000 00
Aug. 19.	J. L. Smith, salary half second term, 1840, teacher at Tecumseh,	50 00
22.	A. Harvie, advance third term, 1840,	100 00
26.	S. Newberry, advance and part payment of salary, third term, 1840,	250 00
	Carried forward,	$

Digitized by Google

	Brought forward,	$	
Aug. 28.	G. P. Williams, incidental expenses, Oakland branch,	33	06
29.	Ætna insurance company, insurance of professor's houses,	117	00
Sept. 5.	A. C. W. Gray, salary second term, 1840, teacher at White Pigeon,	200	00
9.	H. Lum, main building,	3,000	00
	do professors' houses,	1,000	00
21.	Baron Lederer, on regent's bond,	1,286	99
30.	Mr. Rondfit, travel from Albany and back,	50	00
Oct. 7.	Doctor D. Hudson, expenses attending board, third and fourth quarterly meeting,	28	00
8.	A. Ten Eyck, salary as secretary,	75	00
12.	M. Meigs, part salary, third term, 1840,	100	00
23.	H. Lum, main buildings,	3,500	00
Nov. 12.	H. Lum, final settlement of contract for buildings,	214	08
16.	C. W. Fitch, salary to February, 1841,	375	00
28.	S. Newberry, advance, third term, 1840,	100	00
30.	M. Meigs, advance for third term, 1840, tutor at White Pigeon,	30	00
Dec. 22.	Interest on university warrants, December instalment and premium on same,	3,060	00
24.	Joseph Whiting, salary, term ending 24th December, 1840, balance,	350	00
26.	G. P. Williams, salary third term, 1840, principal Oakland branch,	346	00
	A. Ten Eyck, services as secretary of board of regents,	50	00
28.	A. Harvie, salary third term, 1840, principal at Tecumseh,	300	00
29.	Samuel Center, one-third year's salary, principal at Monroe,	433	33
	Sabine Hough, advance on salary, tutor at Monroe,	75	00
		$41,852	43

II. Heads of Expenditures in 1840.

Of the preceding expenses, the following sums have been applied to the objects named, to wit:

For the main building of the university at Ann Arbor,	$15,867	22
professors' dwellings,	7,000	00
Carried forward,	$	

Digitized by Google

Brought forward,		$
For inclosure and other improvements, university grounds,		398 00
salaries of professors, principals of branches and their assistants,		10,188 37
interest on state stocks,		6,120 50
cabinet and library,		1,497 91
insurance on professor's houses,		117 00
printing,		13 00
secretary's salary,		225 00
incidental expenses,		425 43
Total expenditures during the year,		$41,852 43

III. Cost of sustaining the branches.

The following appropriations cover the amounts allowed for the pay of principals and their assistants, viz:

For the branch at	Pontiac,	$1,200 00	
do	Monroe,	1,900 00	
do	Detroit,	1,600 00	
do	White Pigeon,	1,800 00	
do	Niles,	1,700 00	
do	Tecumseh,	1,700 00	
do	Kalamazoo,	400 00	
			$10,300 00
Of this amount, there has been paid by the board of regents, by warrants on the treasurer, as above indicated in No. 2,		$10,188 33	
The estimated amount of receipts at the branches, may be set down at		2,460 00	
		$12,648 33	
Of the latter sum, which is assumed from the best data at hand, there has been advanced by the board, (to be rëimbursed if this estimate holds good,)		2,348 33	
			$10,300 00

IV. General state of the university fund, as especially constituted by the state loan, and interest on lands sold.

To amount deposited in the Bank of Michigan, 16th December, 1839, as per last report,	$55,644 90
notes and bonds received from the Michigan state bank, being the amount reported last year as standing to the credit of Mr. Nor-	
Carried forward,	$

Digitized by Google

		$
Brought forward,		
ton, the former treasurer of the board,		4,482 36
To amont of interest paid by the Bank of Michigan, 31st December, 1839,		4,415 12
amount of do do 31st December, 1840,		3,333 00
amount of interest and instalments on lands, sold, received from the superintendent of public instruction, since last report,		6,402 91
		$74,278 23

CR.

By disbursements for all objects in 1840, as per general abstract above,	$41,852 43	
amount of warrants paid by the Bank of Michigan, between the date of last report, 16th Dec., 1839, and the 31st of that month,	4,510 00	
balance to credit of university, in Bank of Michigan, 31st December, 1840,	26,851 00	
different incidental items,	1,064 80	
		$74,278 23

Note.—The last item arises in this manner:

Interest charged by disbursements by bank,		$1,118 77
Item paid to C. C. Douglass,		50 00
		$1,168 77
From which, deduct cash repaid by Mr. Pratt,	$99 00	
Received by bank, to credit of university,	34 97	
		$133 97
Difference accounted for,		$1,034 80

(C.)

Report on Library.

The library committee have examined, with as much attention as the time would permit, the catalogue of books purchased in Europe for the university, by Dr. Gray, and derive satisfaction from being able to express to the board of regents, the opinion, that the trust committed to professor Gray, has been executed in a manner which reflects much credit upon his judgment and discrimination in the selection and cost.

The collection, of which a catalogue is herewith submitted, numbers 3,707 volumes, embracing the various departments of history, philosophy, classical literature, sciences and arts, jurisprudence, &c. A large proportion of it consists of works which could not be obtained in America, and many of the editions are scarce and rare in Europe. We deem it fortunate for the interests of the institution that such a basis has been

Digitized by Google

laid for building up a library which shall do honor to the institution, and trust its claims upon the friends of the board, for an annual and permanent increase, may be steadily borne in mind.

We have the satisfaction to add, that the entire collection has been received and opened, at the university buildings at Ann Arbor, to which place the committee are about to forward the valuable but limited number of volumes elsewhere purchased.

The invoices of books purchased by Dr. Gray, amount to £1,036, 18*s.* 7*d.*, or $4,606 55, upon which has been paid $144 93, for freight and charges, and $35 75, for insurance—all which they beg leave to recommend to be audited by the fiscal committee, at the sums charged.

HENRY R. SCHOOLCRAFT,
ZINA PITCHER,
GEORGE DUFFIELD,
Committee.

Detroit, December 5, 1840.

Catalogue of books purchased for Michigan University Library.

History—1 *General.*

Blair, chronology and history of the world, in 76 tables, &c., 1763, 1 vol., folio, bound.
Raleigh, history of the world, 1736, 2 vols., folio, bound.
Outlines of history, (in Lardner's cyclopedia,) 1 vol., 12 mo., cloth.
Nicholas' chronology of history, (Lardner's cyclop.,) 1 vol., 12 mo., cloth.
Dufresnoy, on the study of history and chronology, 1730, 2 vols., 8 vo., bound.
Priestly, lectures on history, &c., 1793, 2 vols., 8 vo., bound.
Miller, lectures on the philosophy of modern history, 1816, 2 vols., 8 vo., bound.
Robertson's (Dr. Wm.) works, 1824, 9 vols., 8 vo., cloth.
Chronological tables of the middle ages, (Oxford,) 1838, 1 vol., folio, pamphlet.
Mayo, chronological history of the European states, 1793, 1 vol., folio, bound.
Falconer, chronological tables, 1796, 1 vol., 4 to., bound.
Wraxall, historical memoirs of my own time, 1836, 7 vols., 8 vo., cloth.
Carver, universal traveler, 1779, 1 vol., folio, bound.
Heylin, history of the world, 1667, 1 vol., folio, bound.
Boyle, universal chronologist, 1826, 1 vol., 8 vo., bound.
Boyle, chronology, 1700, 1825, 1826, 1 vol., 8 vo., bound.

Digitized by Google

Bazin, philosophy of history by Gandell, 1829, 1 vol., 8 vo., bound.
Schlegel, philosophy of history, 2 vols.
Universal history, 65 vols., 8 vo.

Modern History—2 European.

Russell, (Lord John,) history of modern Europe, 1837, 4 vols., 8 vo., cloth.
Russell, (Lord John,) history of Europe from the peace of Utrecht, 1826, 1 vol., 12 mo., cloth.
Hume, history of England, second edition, 1770, 8 vols., 4 to., bound.
Hume, Bissel and Smollet's history of England, 1834, 21 vols., 12 mo., cloth.
Echard, history of England, 1707, 1 vol., folio, bound.
Raumer, (professor at Berlin,) political history of England during the 16th, 18th centuries, 1837, 2 vols., 8 vo., cloth.
Hallam, constitutional history of England from Henry VII., to the death of George II., third edition, 1832, 3 vols., 8 vo., cloth.
Hallam, Europe during the middle ages, (seventh edition,) 1837, 3 vols., 8 vo., cloth.
Camden's Brittannia, (second edition,) 1722, 2 vols., folio, bound.
Sharon Turner's history of England, 12 vols., 8 vo., royal, cloth.
Burnett, history of the Reformation, (Dr. Nare's edition,) 1839, 4 vols., 8 vo., royal, cloth.
Burnett, history of his own time, 1734, (with an autograph of the author,) 2 vols., folio, bound.
Rapin, history of Eng. by Tindall, 1732, 5 vols., folio, bound.
The pictorial history of England, (the 2 volumes completed,) 1838–9, 2 vols., 8 vo., imperial, cloth.
Palgrave, rise and progress of the English commonwealth, 1832, 2 vols., 4 to., cloth.
Palgrave, history of the Anglo-Saxons, (from family library,) 1831, 1 vol., 18 mo., cloth.
Mackintosh, history of the revolution in Great Britain in 1688, with a notice of his life, and writings and speeches, 1834, 1 vol., 4 to., cloth.
Lingard's history of England, 12 vols., 12 mo., cloth.
Wade, British history, from the Roman invasion to the accession of Queen Victoria, (1,154 pp.) 1839, 1 vol., 8 vo., cloth.
The history of Scotland, from the Latin of George Buchanan, continued by Watkins, 2 vols., 8 vo., cloth.
Goldsmith, history of England, continued by Wright, 1839, 2 vols, 8 vo., cloth.
Clarendon's history of the rebellion and civil wars, 1826, 8 vols, 8 vo., boards.

Digitized by Google

Clarendon's state letters during the reign of James II, 1763, 2 vols., 4to, bound.
Clarendon's impeachment and trial of, (second edition,) 1700, 1 vol., 12 mo, bound.
Granger, biographical history of England from Egbert to the revolution, 1767, 5 vols., 8 vo., bound.
Robert's memoirs of the houses of York and Lancaster, 1827, 2 vols, 8 vo., bound.
Aikin, annals of the reign of George III, 1820, 2 vols., 8 vo., bound.
Camden, history of Queen Elizabeth, (third edition,) 1675, 1 vol., folio, bound.
Guizot, history of the British revolution, translated by Contier, 1838, 2 vols, 8 vo., bound.
Oldfield, representative history of Great Britain and Ireland, 1816, 6 vols., 8 vo., bound.
Aikin, (Lucy,) memoirs of the court of Queen Elizabeth, 1832, 2 vols., 8 vo., bound.
Aikin, (Lucy,) memoirs of court of Charles I., 1833, 2 vols., 8 vo., boards.
Vaughan, protectorate of Cromwell, &c., 1838, 2 vols., 8 vo., bound.
Thierry, Norman conquest of England, 1825, 3 vols., 8 vo., bound.
Beda, De Temporibus suis, (printed 1509,) 1 vol., 4to., bound.
Godwin, history of the commonwealth of England, 1824, 4 vols., 8 vo, cloth.
Bishop of Hereford's annals of England in the reigns of Henry VIII., to Queen Mary, translated by Godwin, 1675, 1 vol., folio, bound.
Moleville, history of Great Britain, 1812, 4 vols., 8 vo., bound.
Cromwell's memoirs of Oliver Cromwell, (third edition,) 1822, 2 vols., 8 vo., bound.
Vaughan, memorials of the Stuart dynasty, including the constitutional history of England, from Elizabeth to James II., 1831, 2 vols., 8 vo., bound.
Tytler, England under the reigns of Edward V., and Mary, &c., 1839, 2 vols., 8 vo., cloth.
Raumer, history of Queen Elizabeth and Mary, Queen of Scots, from researches in the British museum and state paper office, 1836, 1 vol., 8 vo., cloth.
Raumer, Brittannia after the Romans, 1836, 1 vol., 4to., cloth.
Daniel, the collection of the history of England, continued to the reign of Henry VII., by John Trussel, 1685, 1 vol., folio, bound.
May, history of the parliament of England which began Nov. 3, 1640, 1647, 1 vol., folio, bound.
Jeffrey of Monmouth, British history, 1718, 1 vol., 8 vo., bound.

Digitized by Google

Fellows' historical sketches of Charles I., Cromwell, Charles II., &c., 1828, 1 vol., 4to., boards.

Scott's history of Scotland, (Lardner's cyclop.) 2 vols., 12 mo., cloth.

Ellis, (Sir Henry,) original letters, illustrative of English history, from originals in British museum, (second series,) 4 vols., 8 vo., bound.

Ellis, (George Agar,) historical inquiry concerning Clarendon, 1827, 1 vol., 12 mo., boards.

Dalrymple, (Lord Hailes,) annals of Scotland, 1819, 3 vols, 8 vo., bound.

Dalrymple, (Sir Henry,) memoir on his proceedings in Spain, (by himself,) 1830, 1 vol., 8 vo., boards.

From Constable's Miscellany—

Chambers' rebellions in Scotland, from 1633 to 1660, 2 vols.
Dalrymple's rebellions in Scotland from 1638 to 1715, 1 vol.
Dalrymple's rebellions in Scotland from 1745 to 1746, 2 vols.
Taylor's civil wars of Ireland, 2 vols.
do memorials of the late war, 2 vols.
Thompson, illustrations of the history of Great Britain, 2 vols.

Maddox, history of the exchequer, 1711, 1 vol., folio, bound.

Boyer, life and reign of Queen Anne, 1852, 1 vol., folio.

Wright, Queen Elizabeth and her times, 1838, 1 vol., 8 vo., boards.

Wilkes, controversial and other letters, 2 vols., 12 mo., boards.

Jessey, court of England, 2 vols, 8 vo., cloth.

Bayley, history and antiquities of the tower of London, 1830, 1 vol., 8 vo., cloth.

Boece, history and chronicles of Scotland, (1536,) edited and translated by Bellenden, 1831, 2 vols., 4to., bound.

The North Britain, (Wilkes,) 1769, 2 vols., folio, bound.

Fabyon, new chronicles of England and France, (edited by Ellis,) 1811, 1 vol., 4to, boards.

Grafton, chronicles, or history of England, 1809, 2 vols, 4to., boards.

Arnold's chronicle, (rēprinted from the first edition,) 1811, 1 vol., 4to., bound.

Nenni, historia Brittonum, ad fidem, cod, Mss. rec., J. Stevenson, (written 856,) printed by the English historical society, 1838, 1 vol., 8 vo., boards.

Gildas, De Excidio Brittaniæ, &c.,(printed by the English historical society,) 1838, 1 vol., 8 vo., boards.

Sir John Froissart, chronicles of England, France and Spain, (new edition,) 1839, 2 vols., 8 vo., royal, cloth.

Sir Robert Naunton, Fragmenta Regalia, or court of Queen Elizabeth, (edited by Caulfield,) 1811, 1 vol., 4to, cloth.

Godwin, history of reign of Henry V., 1704, 1 vol., folio, bound.

Digitized by Google

The Camden society, tracts, viz:
The Plumpton correspondence, from Edward IV. to Henry VIII., 1 vol., 4to, boards.
History of the restoration of Edward IV., 1838, 1 vol., 4to., boards.
Poem on deposition of Richard II.
Ricardi Maydiston, de Concordia inter Ricardum II., et civitalem London, 1838, 1 vol., 4to., boards.
Chronicon Ricardi Divisiensis, de Rebus gestis Ricardi primi Regis Angliæ, (cur, Stevenson,) 1838, 1 vol., 4to., royal, boards.
Excerpta historica, or illustrations of English history, 1833, 1 vol., 8 vo., royal, boards.
Miscellanea Anglicana Antiqua; a collection of curious tracts on English history and literature, 1816, 1 vol., 4to., boards.
Aikon Basilika. The works of King Charles the Martyr, with a collection of declarations, treaties, and other papers concerning the differences between his said majesty and his two houses of parliament, 1662, 1 vol., folio, bound.
The trial of Thomas, Earl of Strafford, by Rushworth, 1680, 1 vol., folio, bound.
Select tracts relating to the civil wars in England in the time of Charles I., mostly cotemporary writers, viz:
Preface by Masseres;
May, history of Parliament of England;
Lilly, life and death of Chares I.;
Memoirs of Lord Hollis;
Walker's remarks and observations on the Parliament of 1640;
Memoirs of Sir John Berkley, with an account of his negotiations with Cromwell for the restoration of Charles II.;
Sundry reasons inducing Major Hutchinson to lay down his commission;
Memorials of Thomas, Lord Fairfax, by himself;
Hobbes' Behemoth, or history of the causes of the civil wars in England;
Remarks on Hobbes' Behemoth, by the editor;
The history of England stated, &c., (attributed to Dr. Fill;)
Price, mystery and method of His Majesty's happy restoration;
Milton, (John,) reflections on the civil war, &c., 1815, 2 vols. in one, 8 vo., bound.
Frankland, annals of King Charles I., James I., &c., 1681, 1 vol., folio, bound.
Bulstrode, memoirs and reflections on the government of king Charles I. and Charles II., 1721, 1 vol., 8 vo., bound.
Masseres' political and historical tracts, 1809, 1 vol., 8 vo., bound.
Lodge, illustrations of British history, biography and manners

Digitized by Google

from the reign of Henry VIII., to James I., in a series of original papers selected from the manuscripts of the families of Howard, Talbot and Cecil, (second edition,) 1838, 3 vols., 8 vo., cloth.

Nelson, collection of the affairs of state from the beginning of the Scotch rebellion, in 1639, to the murther of Charles I., 1682, 2 vols., folio, bound.

Ashburnham, narrative of his attendance on King Charles I., from Axford to the Scotch army, &c., 1830, 2 vols., 8 vo., boards.

Nickols, original letters and papers of state addressed to Oliver Cromwell, found among the papers of Milton, 1743, 1 vol., folio, bound.

Burton, (Thomas,) Cromwellian diary, with Goddard's account of the parliament of 1654, edited by Rutt, 1828, 4 vols., 8 vo., cloth.

History of the execrable Irish rebellion, (Borlase,) 1680, 1 vol., folio, small, bound.

Thompson, historical essay on the Magna Charta of King John, &c., 1829, 1 vol., 8 vo., bound.

Dalrymple, state papers in the reign of James I. and Charles II., 1766, 2 vols., in one, 8 vo., bound.

Dalrymple, memoirs of Great Britain and Ireland from Charles II. to the sea battle off the Hague, (with the continuation and appendixes bound with volume 1,) 1771, 2 vols., 4to, bound.

DeFoe, history of the union, with appendix, 1786, 1 vol., 4to, bound.

Blackstone, the Great Charter and other charters, with the history of the charters, (Oxford,) 1759, 1 vol., 4to, bound.

The Lockhart papers, edited by Anfrere. Original papers, containing the secret history of Great Britain from the reformation to the accession of the house of Hanover, arranged by Macpherson, 1776, 2 vols., 4to, bound.

Howard, collection of letters from original manuscripts of statesmen, princes, &c., &c., 1753, 1 vol., 4to, bound.

Winwood, (Sir Ralph,) memorials of affairs of state in the reigns of Elizabeth and James I., from original papers of Winwood, secretary of state, &c., 1725, 3 vols., folio, bound.

Cole, memoirs of affairs of state, containing letters written by ministers employed in foreign negotiations from 1697 to 1708, (1723,) 1 vol., folio, bound.

State papers, published under the authority of his majesty's commission, (Henry VIII.,) 1830–1, 2 vols., 4to., bound.

Carte, collection of original letters concerning the affairs of England, found among the Duke of Ormond's papers, 1739, 2 vols., 8 vo., bound.

Digitized by Google

Dodington, (Baron Melcombe Regis,) diary, with appendix, &c., 1809, 1 vol., 8 vo., bound.

Collection of all the wills known to be extant of the kings and queens of England, 1780, 1 vol., 4to, bound.

Devon, issues of the exchequer during the reigns of James I., 1836, 1 vol., 8 vo., royal, boards.

Nicolas, synopsis of the English peerage, 1830, 2 vols., 18 mo., boards.

Berington, history of the reign of Henry II. and Richard and John, his sons, &c., 1791, 2 vols., folio, bound.

Sadler, state papers and letters, edited by Arthur Clifford; with a memoir and notes by Walter Scott, 1809, 2 vols., 4to, cloth.

The correspondence of Henry Hyde, Earl of Clarendon, and his brother, Lawrence Hyde, Earl of Rochester, with the diary of Clarendon, containing minute particulars of the events attending the revolution, by Singer, 1828, 2 vols., 4to, boards.

Philips, world of worlds, (seventh edition,) 1706, 1 vol., folio, bound.

The indictment, tryal, &c., of the regicides of Charles I., 1730, vol., 4to, bound.

Barnes, history of Edward III., and Edward the Black Prince, 1688, 1 vol., folio, bound.

Macpherson, (John,) critical dissertations on the ancient Caledonians, 1768, 1 vol., 4to, bound.

North, (Montagu,) examen, 1768, 1 vol., 4to., bound.

Cox's memoirs of the Pelham administration, 1829, 2 vols., 4to, cloth.

Nicholl's recollections and reflections on public affairs in the reign of George III., 1820, 2 vols., 8 vo., bound.

Barlow, vindication, &c., (Indian government,) 1812, 2 vols., 8 vo., bound.

Salmon, examination of Burnet's history of his own times, 1721, 2 vols., 8 vo., bound.

Philips' inquiry into the union with Scotland, 1705, 1 vol., 18 mo., bound.

Arlington, (Earl of,) letters to Sir William Temple, (triple alliance, &c.,) 1701, 1 vol., 8 vo., bound.

Waldegrave, (Earl,) memoirs, 1821, 1 vol., 4to, bound.

Ancient English and French history, exemplified in a dissection of the Saxon chronicle, &c., 1830, 1 vol., 12 mo., cloth.

Barrington, (Sir Jonah,) historic memoirs of Ireland, comprising secret records of the national convention, the rebellion, and the union, (second edition,) 1835, 2 vols., 4to, royal, cloth.

Walsh, (captain Thomas,) journal of the campaign in Egypt, 1803, 1 vol.

Digitized by Google

Intercepted letters, (from the army of Bonaparte,) from Egypt, 1798, 1 vol., 8 vo., bound.
Napier, peninsular war, 1838–9, 5 vols., 8 vo., cloth.
Rushworth's historical collections, 7 vol., folio, bound.
Hereen's historical treaties, 1 vols., 8 vo.
do Europe, 2 vols., 8 vo.
The dispatches of Field Marshal, the Duke of Wellington, during his campaigns in India, Denmark, Portugal, Spain, the low countries and France, from 1799 to 1818, (second edition,) 1838, 12 vols., 8 vo., royal, cloth.
Index to Wellington despatches, by Col. Garwood, 1 vol., 8 vo., cloth.
Porter, (Sir Kerr,) campaign in Russia, 1814, 1 vol., 8 vo.,
Southey, history of the peninsular war, 1828, 4 vols., 8 vo., boards.
Martin, history of the British possessions in the Mediterranean, (British Colonial library,) 1 vol., 12 mo., cloth.
Alison, history of the French revolution, (third edition,) 1839, 6 vols., 8 vo., cloth.
James, (G. P. R.,) life and times of Louis XIV., 1838–9, 4 vols., 8 vo. cloth.
Botta's Italy under Napoleon, 1828, 2 vols., 8 vo., bound.
Landman's Portugal, 1818, 2 vols., folio, cloth.
Sismondi, history of the Italian republics, (Lardner's cyclop.,) 1 vol., 12 mo., cloth.
Dunham, Europe in the middle ages, (Lardner's cyclop.,) 4 vols., 12 mo. cloth.
Dunham, history of Spain and Portugal, 5 vols., 12 mo., cloth.
Dunham, history of the Germanic empire, 3 vols., 12 mo., cloth.
History of Switzerland, (Lardner's cyclop.,) 1 vol., 12 mo., cloth.
Crow's history of France, (Lardner's cyclop.,) 3 vols., 12 mo., cloth.
Bell, history of Russia, (Lardner's cyclop.,) 3 vols., 12 mo., cloth.
Grattan, history of Netherlands, (Lardner's cyclop.,) 1 vol., 12 mo., cloth.
Dunham, history of Poland, (Lardner's cyclop.,) 1 vol., 12 mo., cloth.
Lyall, (Robert,) Russia and the Russians, with a dissertation on Russian language, 1823, 1 vol. 4to., boards.
Wraxall, history of France, 1814, 6 vols., 8 vo., boards.
Smyth, Sicily, &c., 1824, 1 vol., 4to, boards.
Watson, history of the reign of Phillip II. of Spain, (seventh edition,) 1839, 1 vol., 8 vo., boards.
Watson and Thompson, history of the reign of Philip III. of Spain, 1 vol., 8 vo., boards.

Digitized by Google

Ricant, history of the present state of the Ottoman empire, 1648, 1 vol., 12 mo., bound.
Brown, courts of Sweden and Denmark, 1818, 2 vols., 8 vo., bound.
Mottley, life of Peter I., 1739, 3 vols., 8 vo., bound.
Lamballe, (Princess,) secret memoirs of the court of France, 1826, 2 vols., 8 vo., boards.
De Mereray, history of France, 1683, 1 vol., folio, bound.
History of Spain to the death of Philip II., 1814, 1 vol.
Mariana, history of Spain, with continuation and supplement, translated by Stevens, 1699, 1 vol., folio, bound.
Boisgelin, history of the knights of Malta, 1805, 2 vols., 4to., boards.
Watson, history of Philip II., of Spain, 1779, 2 vols., 4to., bound.
Horrebon, Iceland, 1753, 1 vol., folio, bound.
Crantz, history of Greenland, 1820, 2 vols., 8 vo., boards.
From Constable's Miscellany—
General register for 1827, with a memoir of Canning, 1 vol.
Lanson's remarkable conspiracies, 2 vols.
Schilleis' thirty years' war, 2 vols.
Keightley's Greek war, 2 vols.
Crichton's history of the revolution in Europe, 3 vols.
Stebbing's chivalry and crusades, 2 vols.
Uphams' Ottomon empire, 2 vols.
Murphy, history of the Mahommedan empire in Spain, 1816, 1 vol., 4to., cloth.
Emerson, history of modern Greece, 1830, 2 vols., 8 vo., bound.
Brownrig, history of the Huguenots, 1829, 2 vols., 8 vo., bound,
Fletcher, history of Poland, 1831, 1 vol., 8 vo., boards.
Reaumer, history of Frederick II. and his times, 1837, 1 vol., 8 vo., cloth.
Reaumer, illustrations of the history of the 16th and 17th centuries, 1835, 2 vols., 8 vo., bound.
Segur, (the elder,) reign of Frederick William II., of Prussia, 1801, 3 vols., 8 vo., bound.
Segur, (the younger,) history of Russia and Peter the Great, 1829, 1 vol., 8 vo., cloth.
Nichbuhis, Rome, 2 vols., 8 vo.

Modern History —Asiatic, African, &c.

Malcolm, political history of India, 1826, 2 vols., 8 vo., boards.
Forbes, oriental memoirs, 1813, 4 vols., 4 to., cloth.
Marsden, history of Sumatra, 1811, 1 vol., 4to, boards.
Malcolm, history of Persia, 1815, 2 vols., 4to, bound.
Raffles, on Java, 1 vol., 4to, bound.

Digitized by Google

Raffles, history of Java, (second edition,) 1830, 2 vols, 8 vo., cloth.
Price, Mahommedan history, 1821, 4 vols., 4to, cloth.
Hill, (Aaron,) history of the Ottoman empire, 1709, 1 vol., folio, bound.
History of the Tartars, (partly from the Tartar MSS. of Bahader,) 1730, 2 vols., 8 vo., bound.
Kampfer, history of Japan, translated by Schenchzer, 1727, 2 vols., folio, bound.
Titsingh, illustrations of Japan, translated by Schubul, 1822, 1 vol., 4to, bound.
Vincent, history of the commerce and navigation of the ancients in the Indian ocean, 1816, 2 vols., 4to, cloth.
Raynal, (l'Abbe,) history of the settlements and trade of the Europeans in the East and West Indies, 1789, 6 vols., 8 vo., boards.
Prinsep, political and military transactions in India during the administrations of the Marquis of Hastings, 1825, 2 vols., 8 vo., cloth.
Duhalde, history of China, 1738, 2 vols., folio, bound.
Charlevoix, historic et description generale du Japan, 1736, 2 vols., 4to, bound.
Gutslaff and Reed, China opened, a display of the topography, history and customs, &c., of the Chinese empire, 1838, 2 vols., 8 vo., cloth.
Ellis, history of Madagascar, 1839, 2 vols., 8 vo., cloth.
Martin, history of the British East India possessions, (British colonial possessions, volumes eight and nine,) 2 vols., 12 mo., cloth.
Martin, history of New South Wales, &c., (British colonial possessions,) 1 vol., 12 mo., cloth,
Martin, history of Cape of Good Hope and the Mauritius, (British colonial library,) 1 vol., 12 mo., cloth.
Martin, history of the British possessions in the Indian and Atlantic oceans, (British colonial library,) 1 vol., 12 mo., cloth.
Morgan's history of Algiers, 1721, 1 vol., 4to, bound.

Modern History—American.

Claringero, history of Mexico, 1807, 2 vols., 4to, bound.
De Solis, history of the conquest of Mexico by the Spaniards, (by Townsend,) 1753, 2 vols., 8 vo., bound.
Humboldt, political essay on New Spain, 1811, 4 vols., 8 vo., bound.
Ward's Mexico, 1829, 2 vols., 8 vo., cloth.
Keating, conquest of Mexico, from the Spanish of Castillo, 1800, 1 vol., 4to, bound.
Henderson, history of Brazil, 1821, 1 vol., 4to, bound.
Juarros, history of Guatimala, translated by Bailly, 1823, 1 vol., 8 vo., cloth.

Digitized by Google

Cosio, conquest of Peru, 1 vol., (from Constable's miscellany.)
Jeffrey's history of the French dominions in North and South America, 1760, 1 vol., folio, bound.
Ranking, researches on the conquest of Peru and Mexico, by the Mongols, &c., 1827, 1 vol., 8 vo., cloth.
Hutchinson (Governor,) history of the colony of Massachusetts bay, 1765, 1 vol., 8 vo., bound.
Ramsay, history of the revolution in South Carolina, (Trenton,) 1785, 2 vols., 8 vo., bound.
Grahame, history of the United States until the British revolution, 1827, 2 vols., 8 vo., boards.
Stedman, history of the American war, 1794, 2 vols., 4to, bound.
James, (Wm.) history of the military occurrences between Great Britain and America, 1816, 2 vols., 8 vo., bound.
do naval occurrences, &c., 1817, 1 vol., 8 vo., bound.
American state papers, (Washington's official letters to congress,) 1790, 2 vols., 8 vo., bound.
Debates in the house of Commons on the government of Canada in 1774, 1839, 1 vol., 8 vo., bound.
Martin, history and statistics of Upper and Lower Canada, (from British colonial library, vol. 1,) 1 vol., 12 mo., cloth.
Martin, history of West Indies, (from British colonial library, vol. 1,) 2 vols., 12 mo., cloth.
Martin, history of Nova Scotia, New Brunswick, &c., 1 vol., 12 mo., cloth.
Fergus, history of the United States of America (in Lardner's cyclopedia,) 2 vols., 12 mo., cloth.
British America, 3 vols.

3. *Ancient History and Geography.*

Gibbon, decline and fall of the Roman empire, 1787, 6 vols., 4to, bound.
Gibbon, decline and fall, &c., 1818, 12 vols., 8 vo., bound.
Sismondi, fall of the Roman empire, (from Lardner's cyclopedia,) 2 vols., 12 mo., cloth.
History of Rome, (from Lardner's cyclopedia,) 2 vols., 12 mo., cloth.
Gillies, history of ancient Greece, 1820, 8 vols., 8 vo. cloth.
Rollin, ancient history, 1839, 6 vols., 8 vo., cloth.
Rollin, Roman history to the end of the commonwealth, 1739, 16 vols,, 8 vo., bound.
Crevier, Roman history, (continues Rollin to the death of Constantine,) 10 vols., 8 vo., bound.
Hooke, Roman, history, 1830, 6 vols., 8 vo., boards.
Mitford's Greece, by Lord Redesdales, 1838, 8 vols., 8 vo., cloth.
Ferguson's Roman republic, 1825, 5 vols., 8 vo., cloth.

Digitized by Google

Blackwell's memoirs of the court of Augustus, 1753, 1 vol., 4to., bound.
Gillees' history of the world from Alexander to Augustus, 1807, 2 vols., 4to., bound.
History of Nero Cæsar, 1627, 1 vol., 4 to., bound.
Heesen's historical reseaches into the politics, intercourse, and trade of the principal nations of antiquity, (from the German,) 1833, 6 vols., 8 vo., boards.
Wells' historical geography of the old and new testaments, 1819, 2 vols., 8 vo., bound.
Usher, (Archbishop,) annales veteris et Novis Testamenti, &c., cum verum Asiat. et Ægypt, Chronico, &c., Geneva, 1722, 1 vol., folio, bound.
Cramer, geographical and historical description of Asia Minor, 1832, 2 vols., 8 vo., bound.
Laurent, introduction to ancient geography, 1830, 1 vol., 8 vo., bound.
Gell, topography of Troy, 1804, 1 vol., folio, bound.
Gell, topography of Rome, &c., 1834, 3 vols., 8 vo., cloth.
Gell, Pompeiana, 1837, 2 vols., 8 vo., cloth.
D'Anville, ancient geography by Horseley, 1810, 2 vols., 8 vo., cloth.
Atlas to D'Anville, 1 vol., folio, bound.
Annales antiquitatis, cronological tables of ancient history, (Oxford,) 1835, 1 vol., folio, pamphlet.
Newton, (Sir Isaac,) chronology of ancient kingdoms, 1828, 1 vol., 4to, bound.
Wilkinson, ancient Egyptians, 1837, 3 vols., 8 vo., cloth.
Sharpe, early history of Egypt, 1836, 1 vol., 4to, boards.
Sharpe, history of Egypt under the Ptolemies, 1818, 1 vol., 4to, boards.
Ranking, historical essay on the wars and sports of the Mongols and Romans, 1821, 1 vol., 4to, boards.
Winder, history of the rise and progress of knowledge, from Adam to Christ, 1745, 1 vol., 4to, boards.
Quintius Curtius, life and reign of Alexander the great, (transl:) 1809, 2 vols., 8 vo., bound.
Leland, life and reign of Philip of Macedon, 1820, 2 vols., 8 vo., bound.
Arrian, history of Alexander's expedition by Rooke, 1814, 2 vols., 8 vo., bound.
Barthelemy, travels of Anachansis, 1830, 6 vols., 8 vo., boards.
Barthelemy, with one volume of plates, 1 vol., 4to, boards.
Barthelemy, voyage d'Anachansis in Greece, Paris, 1827, 1 vol., 8 vo., bound.
The Athenian letters, (by Lord Hardwicke,) 1810, 2 vols., 4to, boards.

Digitized by Google

History—4 Ecclesiastical.

Polano, history of the council of Trent, (translated by Brent,) 1676, 1 vol., folio, bound.
Bower, history of the Popes, 1754, 7 vols., 4to, bound.
L'Enfant, history of the council of Constance, (from the Amsterdam edition,) 1730, 2 vols., 4to, bound.
History of the Jesuits, 1816, 2 vols., 8 vo.
Fox's acts and monuments of the church, edited by Seymour, 1838, 8 vo., royal, cloth.
Neal, history of the Puritans, 1837, 3 vols., 8 vo., cloth.
Fuller, church history of Britain, 1837, 3 vols., 8 vo., cloth.
Prideaux, old and new testament, connected in the history of the Jews and surrounding nations, 1839, 2 vols., 8 vo., cloth.
Sismondi, history of the crusades against the Albigenses, 1826, 1 vol., 8 vo., cloth.
Campbell's lectures on ecclesiastical history, 1834, 1 vol., 8 vo., bound.

Classical, Literature and Criticism, Antiquities, Philology, &c.

Nuttall's classical and archæological dictionary, 1 vol., 8 vo., cloth.
Spence, polymetis, or inquiry concerning the agreement between the works of the Roman poets and the remains of ancient artists, 1747, 1 vol., folio, bound.
Bell, new Pantheon, 1790, 2 vols., 4to, bound.
Bryant, ancient mythology, 1774, 3 vols., 4to, bound.
England's inquiry into the morals of the ancients, 1735, 1 vol., 4to, bound.
Fosbrooke and Dunham, Grecian and Roman antiquities, (Lardner's cyclop.,) 2 vols., 12 mo., cloth.
Drummond, review of the governments of Sparta and Athens, 1794, 1 vol., 8 vo., boards.
Arbuthnot, on ancient coins, weights and measures, 1737, 1 vol., 4to, bound.
Porson, tracts and criticisms, 1826, 1 vol., 8 vo., bound.
Sillig, dictionary of the artists of antiquity, by Williams, to which is added C. Plinii secunda, naturalis historiæ lilri, 34–36, by Barker, 1837, 1 vol., 8 vo., bound.
Prescott, letters concerning Homer, &c., 1763, 1 vol., 4to, bound.
Pausanias, description of Greece, 1824, 3 vols., 8 vo., boards.
Cory, ancient fragments of Phœnician, Chaldean, Egyptian, Tyrean, Indian, Persian, and other writers, 1832, 1 vol., 8 vo., boards.
Sewell, Horæ Philologicæ, or conjectures on the structure of the Greek language, 1832, 1 vol., 8 vo., boards.
Sabœan, researches or essays on the hieroglyphics of Egypt, Chaldea and Canaan, by Landseer, 1823, 1 vol., 4to, boards.

Digitized by Google

The Parian Chronicle, with an inquiry concerning its authenticity, 1788, 1 vol., 8 vo., boards.

Museum criticum, or Cambridge classical researches, 1826, 2 vols., 8 vo., boards.

Malkin, classical disquisitions, 1 vol., 8 vo., boards.

Wickham and Cramer, dissertation on Hannibal's passage over the Alps, 1828, 1 vol., 8 vo., boards.

Hermann, manual of the political antiquities of Greece, translated from the German, 1836, 1 vol., 8 vo., boards.

Wachsmerth, historical antiquities of the Greeks, with reference to their political institutions, translations from the German by Woolrych, 1837, 2 vols., 8 vo., cloth.

Keightly, mythology of ancient Greece and Italy, 1838, 1 vol., 8 vo., cloth.

Dunlop, history of Roman literature from the Augustan age, 1824, 3 vols., 8 vo., boards.

Donaldson, theatre of the Greeks, (fourth edition,) 1836, 1 vol., 8 vo., boards.

Moses, antique vases in the collection of Sir Henry Englefield, 1 vol., 4to, cloth.

Inquiry into the life and writings of Homer, 1735, 1 vol., 8 vo., cloth.

Treves and its Roman antiquities, 1 vol., 8 vo., cloth.

Canova and Visconti, Elgin marbles, 1816, 2 vols., 8 vo., boards.

Dalrell, lectures on the Greeks, 1821, 2 vols., 8 vo., boards.

Baker, Medulla Pretarum Romanorum, with translations, 1737, 2 vols., 8 vo., bound.

Blackwell's mythology, 1768, 1 vol., 8 vo., bound.

Boyle on Bentley, dissertations on Phalaris, 1698, 1 vol., 8 vo., bound.

Depauw, philosophical dissertations on the Greeks, 1793, 2 vols. in 1, 8 vo., bound.

Rollin, arts and sciences of the ancients, 1768, 3 vols., 8 vo., bound.

Jostin, observations on authors, 1732, 2 vols., 12 mo., bound.

Gell's Argolis, an itinerary of Greece, with a commentary on Pausamius and Strabo, 1 vol.

Fosbrooke, encyclopædia of antiquities and foreign topography, 1828, 3 vols., 4to, cloth.

Maurice, Indian antiquities, &c., 1800, 7 vols., 8 vo., bound.

Young, account of discoveries in hieroglyphics and Egyptian antiquities, 1823; Salt. hieroglyphics, 1825, 1 vol., 8 vo., bound.

Sharpe, vocabulary of Egyptian hieroglyphics, 1837, 1 vol., 4to, boards.

Taylor's translations of treatises of Plotinus, 1834, 1 vol., 8 vo., cloth.

Digitized by Google

Taylor's translations of treatises of Proclus, 1833, 1 vol., 8 vo., cloth.
Taylor's Ocellus Lucanus, &c., 1831, 1 vol., 8 vo., cloth.
Taylor's metaphysics of Aristotle, 1801, 1 vol., 4to, cloth.
Taylor's dissertation on the philosophy of Aristotle, 1801, 1 vol., 4to, cloth.
Taylor's six books of Proclus on the theology of Plato, &c., 1816, 2 vols., 4to, cloth.
Taylor's commentaries of Proclus on the Timæns of Plato, 2 vols., 4to, cloth,
Seneca's works, by Lodge, 1 vol., folio, bound.
Gordon's Tacitus, 1767, 4 vols., 8 vo., bound.
Watson's Horace, 1760, 2 vols., 8 vo., bound.
Freisenheini's Livy, 1745, 6 vols., 8 vo., bound.
Cicero's Cato, or essay on old age, 1 vol., 8 vo., bound.
Cicero's nature of the gods, with critical and philosophical notes, and an inquiry into the astronomy and anatomy of the ancients, (Oxford,) 1839, 1 vol., 8 vo., boards.
Cicero's letters, by Melmoth, 1804, 3 vols., 8 vo., bound.
Cicero's offices, by Cockman, 1833, 1 vol., 18 mo., boards.
Juvenal and Perseus, translated into English verse by Gifford, 1817, 2 vols., 8 vo., boards.
Sophocles, the tragedies in English prose, with notes, (Oxford) 1833, 1 vol., 8 vo., boards.
The comedies of Aristophanes, translated into blank verse, by Wheelright, 1837, 2 vols., 8 vo., boards.
Madan's literal translation of Juvenal and Perseus, 1839, 2 vols., 8 vo., cloth.
Julian's orations, translated, 1793, 1 vol., 8 vo., cloth.
Letters of Pliny, the younger, by the Earl of Orrery, 1752, 2 vols., 8 vo., bound.
Letters of Pliny, the consul, by Melmoth, 1757, 2 vols., 8., vo., bound.
Euripides, opera omnia, with the variorum notes, (Glasgow,) 1831, 9 vols., 8 vo., cloth.
Taylor, fragment of Sophocles, 1825, 1 vol., 12 mo., bound.
Thucydidis, De Bello Peloponnesiaco, ed Gœllerius, 1835, 2 vols., 8 vo., cloth.
Virgilii opera, notis ed Heyniana, &c., 1839, 1 vol., 8 vo., cloth.
Terentri comedia sex, ex sec, Lindenbrogii, &c., ed Giles, 1837, 1 vol., 8 vo., cloth.
Mitchell's acharnenses of Aristophanes, with notes, &c., for schools, 1835, 1 vol., 8 vo., cloth.
Mitchell's knights of Aristophanes, with notes, &c., for schools, 1836, 1 vol., 8 vo., cloth.
Mitchell's wasps of Aristophanes, 1835, 1 vol., 8 vo., cloth.
Mitchell's clouds of Aristophanes, 1838, 1 vol., 8 vo., cloth.

Digitized by Google

Pelile's Agamenmon of Æschylus, a new edition of text, with notes, &c., 1839, 1 vol., 8 vo., cloth.
Arrian on coursing, the Cynegeticus of the younger Xenophon, &c., 1831, 1 vol., 4to, cloth.
Valpy's family classical library, consisting of translations of Demosthenes, 52 vols.
Sallust, 2 vols.
Xenophon, (by Cooper and Spelman,) 2 vols.
Herodotus (Beloe,) 3 vols.
Pindar, (Wheelwright,) 1 vol.
Tacitus, (Murphy,) 5 vols.
Theophrastus, 1 vol.
Virgil, (the Georgics by Sothety) the Amid by Dryden, 2 vols.
Euripides by Potter, 3 vols.
Juvenal, (Badham;) Perseus, (Drummond,) 1 vol.
Hesiod by Elton; Bion and Moschus; Sappho and Musæus; Hankes, 1 vol.
Lycophron (Royston;) Ovid, (Dryden and Pope,) 2 vols.
Æschylus, (Potter,) 1 vol.
Sophocles, (Franklin,) 1 vol.
Homer, (Pope,) 5 vols.
Thucydides, (Smith,) 3 vols.
Plutarch, (Langshorme,) 6 vols.
Cæsar, (Duncan,) 2 vols.
Cicero, (Duncan, Cockman, Melmoth,) 3 vols.
Livy, (Baker,) 7 vols.
Horace, (Philip Francis,) 2 vols.
Cicero's letters to Atticus; 1825, 2 vols., 8 vo., cloth.
Cicero's Tusculan disputations, 1758, 1 vol., 8 vo., boards.

Intellectual Philosophy.

Enfield, history of philosophy, chiefly from Brucker's historia critica philosophiæ, 1791, 2 vols., 4to, bound.
Locke's works, 1740, 3 vols., folio, bound.
Mallebranche, search after truth, and other writings, by Taylor, 1700, 1 vol., folio, bound.
Cudworth, intellectual system, 1711, 1 vol., folio, bound.
Moore, (Dr. Henry,) philosophical writings, fourth edition, 1712, 1 vol., folio, bound.
Hume, essays and treatises, 1825, 2 vols., 8 vo., cloth.
Ritter, history of ancient philosophy, translated from the German by Morrison, 1838, 3 vols., 8 vo., boards.
Tennemann, history of philosophy, translated by Johnson, 1832, 1 vol., 8 vo., boards.
Parr's collection of the metaphysical tracts of the 18th century, 1837, 1 vol., 8 vo., boards.
Hutton, (Dr. James,) investigation into the principles of knowledge and the progress of reason, &c., 1794, 3 vols., 4to, boards.

Digitized by Google

Plato's works, by Lydenham and Taylor, 1804, 5 vols., 4to., bound.
Hartley on man, (sixth editron, 1834, 1 vol., 8 vo., cloth.
Kant, critic of pure reason, 1838, 1 vol., 8 vo., cloth.
Kant, metaphysical works by Richardson, 1836, 1 vol., 8 vo., cloth.
Reid, inquiry into the mind, 1814, 1 vol., 8 vo., cloth.
Reid, essays on the mind, 1812, 3 vols., 8 vo., bound.
Anderson, philosophy of ancient Greece, 1791, 1 vol., 4to, bound.
Digby's two treatises on the nature of body and soul, 1758, 1 vol., 4to, bound.
On the origin of evil (and letters of Shaflesbury,) 1758, 1 vol., 18 mo., bound.
Harlett, principles of human action, and on abstract ideas, 1 vol., 18 mo., cloth.
King, (Archbishop,) on the origin of evil, 1731, 1 vol., 4to, bound.
Haughton, inquiry into the first principles of reasoning, 1839, 1 vol., 8 vo., cloth.
Newnham, essay on superstition, &c., 1830, 1 vol., 8 vo., cloth.
Bushnan, philosophy of instinct and reason, 1837, 1 vol., 12 mo., boards.
Pring, intellectual and moral relations, 1829, 1 vol., 8 vo., cloth.
Field, outlines of analogical philosophy, 1839, 2 vols., 8 vo., cloth.
Port Royal, art of thinking and Harris' Hermes, 1818, 1 vol., 8 vo., bound.
See also collected works, &c.; moral science, &c.

Moral Science, Evidences of Christianity, &c.

Bishop Butler's works, (by Hallifax,) 1838, 1 vol., 8 vo., boards.
Paley's works, by Dr. S. Wayland, 1827, 5 vols., 8 vo., cloth.
Paley's natural theology, illustrated by Brougham and Bell, 1836, 2 vols., 8 vo., cloth.
Brougham, dissertations on subjects connected by natural theology, being the concluding volumes of his edition of Paley, 1839, 2 vols., 8 vo., cloth.
Coleridge, aids to reflection, 1839, 1 vol., 12 mo., cloth.
Coleridge, the friend, 1837, 3 vols., 12 mo., cloth.
Coleridge, lay sermons, 1839, 1 vol., 12 mo. cloth.
Bœthius, consolations of philosophy, (translation,) 1789, 1 vol., 8 vo., bound.
Aristotle's ethics and politics, by Dr. Gillies, (third edition,) 1813, 2 vols., 8 vo., boards.
Kaimes' (Lord,) sketches of man, 1788, 4 vols., 8 vo., bound.

Digitized by Google

Stanhope's Epictatus, 1704, 1 vol., 8 vo., bound.
Tucker, light of nature pursued, 1837, 2 vols., 8 vo., cloth.
Mackintosh, history of ethical philosophy, (edited by Whewell,) 1837, 1 vol., 8 vo., cloth.
Helvetins, on man, (by Hooper,) 1810, 2 vols., 8 vo., bound.
Cabanis, Physique et Morale de l'Homme, 1815, 2 vols., 8 vo., bound.
Mirabeau, system of nature, (Hodson,) 1795, 4 vols., 12 mo., bound.
Morgan, (Sir T. C.,) philosophy of morals, 1822, 1 vol., 8 vo., cloth.
Estlin, lectures on moral philosophy, 1818, 2 vols., 8 vo., bound.
Dewar, elements of moral philosophy and ethics, 1826, 2 vols., 8 vo., bound.
Beattie, elements of moral science, 1796, 2 vols., 8 vo., bound.
Smith, (Adam,) theory of moral sentiments, (eleventh edition,) 1808, 2 vols., bound.
Mackenzie, (Sir George,) moral essays, 1713, 1 vol., 8 vo., bound.
Conti, (Prince of,) works, 1777, 1 vol., 8 vo., bound.
Shaflesbury's characteristics, 1714, 3 vols., 8 vo.. bound.
Goodwin, thoughts on man, 1831, 1 vol., 8 vo., boards.
Hale, (Sir Matthew,) on the primitive organization of mankind, 1677, 1 vol., folio, bound.
Montagu, selections from Taylor, Barrar, Latimer, &c., 1839, 1 vol., 12 mo., cloth.
Geo. Herbet's remains. 1836, 1 vol., 12 mo., cloth.
Self-formation, or the history of an individual mind, 1837, 2 vols., 12 mo., boards.
The *Mahavansi*, &c., forming the sacred and historical books of Ceylon; also a collection of tracts illustrative of the doctrines and literature of Buddhism, translated from the Singhalese, by Upham, 1833, 3 vols., 8 vo., boards.
Tyndale and Frith's works, 3 vols., 8 vo boards.
Leland, divine authority of the old and new testament vindicated, 1837, 1 vol., 8 vo., cloth.
Gregory, (Dr. Olinthus,) letters on the evidences of christianity, &c., &c., (sixth edition,) 1836, 1 vol., 12 mo., cloth.
Wilson, (Bishop,) evidences of christianity, 1832, 2 vols., 12 mo., cloth.
Alley, vindiciæ christiana, 1826, 1 vol., 8 vo., cloth.
Wranghams' pleiad, (evidences,) (from Constable's miscellany,) 1 vol., 18 mo., cloth.
Grotius, on the truth of the christian religion, by Le Clere, 1805, 1 vol., 8 vo., bound.
Babbage, 9th Bridgewater treatise, (second edition,) 1839, 1 vol., 8 vo., cloth.

Digitized by Google

Government, Politics, &c.

Jeremy Bentham's works, edited by Dr. Bowring, (unfinished,) 1838–9, 12 vols., 8 vo., royal, cloth.
Russell, (Lord John,) essay on the British government and constitution, 1823, 1 vol., 8 vo., boards.
DeLolme, on the constitution of England, (edited by Hughes,) 1834, 1 vol., 8vo., boards.
Guizot, general history of civilization in Europe, 1838, 1 vol., 8 vo., boards.
Machiavelli's works, (translation,) third edition, 1720, 1 vol., folio, bound.
Montesquien, spirit of the laws, 1750, 2 vols., 8 vo., bound.
Godwin, (William,) political justice, 1793, 2 vols., 4to, bound.
Adolphus, political state of the British empire, &c., 1818, 4 vols., 8 vo., bound.
Furguson, (Dr. Adam,) on civil society, 1768, 1 vol., 4to, bound.
Ensor, on national government, 1810, 2 vols., 8 vo., cloth.
Montagu, rise and fall of ancient republics, 1793, 1 vol., 8 vo., bound.
D'Israeli, (the younger,) on the British constitution, 1835, 1 vol., 8 vo., boards.
D'Arenant, (Charles,) political and commercial works, 1771, 5 vols., 8 vo., bound.
Southey's political essays, 1832, 2 vols., 18 mo., bound.
Algernon Sidney, discourses concerning government, with memoirs, 1763, 1 vol., 4to, bound.
Harrington, Oceana, and other works, 1747, 1 vol., folio, bound.
Chateaubriand, essay on revolutions, 1815, 1 vol., 8 vo., boards.
Huskisson's speeches, 1831, 3 vols., 8 vo., boards.
Bacon, on government, 1 vol.
The causes of the French revolution, 1832, 1 vol., 8 vo., boards.
Mackintosh Vindiciæ Gallicæ; Landerdale, (Earl,) letters to the Peers of Scotland, 1 vol., 8 vo., bound.
Neckar, finances of France, &c., translated by Mortimer, 1786, 3 vols., 8 vo., bound.
Auber, outline of the government, laws and policy of China, and of the British embassies, 1834, 1 vol., 8 vo., bound.
Lewis, (G. C.,) use and abuse of political terms, 1833, 1 vol., 8 vo., cloth.
Filangieri, science of legislation, 1806, 2 vols., 8 vo., boards.
Parnell, (Sir Henry,) on financial reform, 1830, 1 vol., 8 vo., boards.
Muller, science of war, 1811, 3 vols., 8 vo., boards.

Digitized by Google

Free and safe government, by a Cumberland land owner, 1835, 1 vol., 8 vo. boards.

Watson, (Bishop,) address to the people; (bound with Mackintosh Vindiciæ Gallicæ.)

Grey, (Wm. H.,) the lords and the people, or the principles of civil government illustrated, 1835, 1 vol., 8 vo., boards.

Prynne, the antipathie of the English lordly prelacie, &c., 1641, 1 vol., 4to, small, bound.

Inquiry into the colonial policy of India, 1822, 1 vol., 8 vo., bound.

Further inquiry, &c., 1828, 1 vol., 8 vo., bound.

De Pradt, L'Europe et L'Amerique en 1822 and 1823, 1824, 2 vol., 8 vo., paper.

On the use and abuse of parliament, 1744, 2 vols., 8 vo., bound.

Mandeville, inquiry into the origin of honor, and the usefulness of christianity in war, 1732, 1 vol., 8 vo., bound.

Mandeville, fable of the bees, &c., (fifth edition,) 1738, 2 vols., 8 vo., bound.

Clarendon, (Earl,) on religion and policy, with a survey of the power and jurisdiction of the Pope in the dominions of other princes, 1811, 2 vols., 8 vo., bound.

A collection of treaties between Great Britain and other powers, by Jenkins, 1785, 3 vols., 8 vo., bound.

Bulwer, France, social, literary and political, (third edition,) 1836, 2 vols., 12 mo., boards.

Bulwer, the monarchy of the middle classes, (second series of France, &c.,) 1836, 2 vols., 12 mo., boards.

The Black-book, an exposition of the abuses in church and state, courts of laws, &c., (second edition,) 1835, 1 vol., 8 vo., cloth.

Wicquefort, the ambassador and his functions, with a discourse concerning the election of the emperors, 1806, 1 vol., folio, bound.

Codex Diplomaticus Anglo-Saxonici, (published by the English historical society,) 1839, 1 vol., 8 vo., boards.

The letters of Junius, 2 vols., 8 vo.

Parliamentary Reports and Papers.

Agriculture, England and Wales, 1836, 2 vols., folio, bound.

Silk trade, 1837, 1 vol., folio, bound.

British museum, 1835, 2 vols., folio, bound.

Revenue, population and commerce of Great Britain, 1820-1835, 3 vols., folio, bound.

Canadian and boundary affairs, 1837–39, 5 vols, folio, bound.

Penitentiary of U. S., &c., 1 vol., folio, paper.

Windham, speeches in parliament, 1812, 3 vols., 8 vo., bound.

Hobhouse and Scarlett, tracts relating to Westminster election, &c., 1 vol., 8 vo., bound.

Digitized by Google

Public Documents and State Papers.

American state papers from 1789 to 1818, 12 vols., 8 vo.
American state papers, Gales and Seaton's imprint, 21 vols., 8 vo.
American archives, 2 vols.
American state papers of 17, 18, 19, and 20th congress, 57 vols.
American state papers, (London,) 2 vols., 8 vo.
Commercial digest, 2 vols., 8 vo.
Colonial laws of South Carolina, 2 vols.
Clarendon's state letters. 2 vols.
Cole's state papers, 1 vol., folio,
Codex deplomat anglo Saxonum, 1 vol.
Collection of treaties, 3 vols.
Collection of royal wills, 1 vol.
Debates on Canada bill, 1774, 1 vol.
Executive papers 17th congress, 12 vols.
Executive documents, American, 1831–38, 28 vols.
House journal 19th, 20th, 21st, 22d, 24th and 25th congress, 6 vols.
Intercepted letters from Egypt, 1 vol.
Journal of federal convention, 1 vol.
Lochart papers, 2 vols., 4to,
Nelson's state affairs, 2 vols.
Original letters, 2 vols.
Parliamentary reports, 12 vols.
do do on silk trade, 1 vol.
Plumpton correspondence, 1 vol.
Reports of committees in United States congress, 17th and 25th congress, 23 vols.
Report on prisons in United States, 1 vol.
do do West Indies, 1 vol.
Report to congress on N. W. coast of America, 1 vol.
Senate documents 18th to 25th congress, 31 vols.
Senate papers 17th and 18th congress, 4 vols.
Senate journal 19th and 25th congress, 7 vols.
State papers, Henry 8th, 1 vol.
Sadler's state papers, 2 vols.
State papers, reigns James 1st and Charles 1st, 1 vol.
Secret journals of congress from 1775 to 1788, 4 vols.
Winwood's state memorials, 3 vols., folio.
Wellington's dispatches, 13 vols., 8 vo.

Jurisprudence, &c.

Grotius, on the rights of war and peace, or law of nature and nations, &c., &c., 1738, 1 vol., folio, bound.
Mackintosh, law of nature and nations, 1835, 1 vol., 12 mo., boards.

Digitized by Google

Barrington, observations on the more ancient statutes, 1769, 1 vol., 4to, boards.
Sullivan, historical treaties on the federal law and the constitution and laws of England, 1772, 4to, boards.
Harris' institutes of Justinian, 1756, 1 vol., 4to, boards.
Blackstone's commentaries (sixteenth edition) by J. T. Coleridge, 1825, 4 vols., 8 vo., boards.
Reeves, history of English law, 2 vols., 4to, bound.
The Frederician code of Prussian law, (translated,) 1761, 2 vols., 8 vo., bound.
Burlamqui, principles of natural law, 1752, 2 vols., 8 vo., bound.
Burlamqui, politic law, 1751, 1 vol., 8 vo., bound.
Laws of South Carolina, 2 vols., folio, bound.
The ordinances of Menu, translated by Sir Wm. Jones, notes by Houghton, 1825, 1 vol., 4to, boards.

Political Economy and Statistics.

Malthus, essay on the principles of population, (sixth edition,) 1836, 2 vols., 8 vo., boards.
Malthus, elements of political economy, 1836, 1 vol., 8 vo., boards.
Say, Traite d'Œcunomie politique, 1814, 2 vols., 8 vo., bound.
Say, political economy by Prinsep, 1821, 2 vols., 8 vo., bound.
Ricardo, political economy, 1821, 1 vol., 8 vo., bound.
Boileau, political economy, 1811, 1 vol., 12 mo., bound.
Ganilgh, political economy, 1812, 1 vol., 8 vo., bound.
Calmers, christian and civic economy, 2 vols., bound.
Scrope, (G. Poullet,) principles of political economy, 1833, 1 vol., 18 mo., boards.
Mill, elements of political economy, 1821, 1 vol., 12 mo., boards.
Smith, wealth of nations, by MacCulloch, 1838, 1 vol., 8 vo., boards.
Jones, on the distribution of wealth and sources of taxation, 1831, 1 vol., 8 vo., boards.
Pasley, on measures, weights and money, 1834, 1 vol., 8 vo., boards.
Burn, familiar letters on population, &c., 1832, 1 vol., 12 mo., boards.
Horton, lectures on statistics and political economy, 1832, 1 vol., 8 vo., boards.
Comber, on national subsistence, 1 vol., 8 vo., bound.
Stuart, (James,) works, 1805, 6 vols., 8 vo., bound.
Purves, population and production, 1818, 1 vol., 8 vo., bound.
Tooke on prices, 1823; Tooke, on currency, 1826, 2 in 1 vol., 8 vo., bound.
Grellier, history of the national debt, 1810, 1 vol., 8 vo., cloth.

Digitized by Google

Graham, principles of population, 1616, 1 vol., bound.
Wallace, numbers of mankind, 1809, 1 vol., 8 vo., bound.
Essays on political economy, &c., 1830, 1 vol., 8 vo., cloth.
Brydges, (Sir Egerton,) on population and riches, 1819, 1 vol., 8 vo., bound.
Jacob, report on foreign corn, 1823, 1 vol., 8 vo., bound.
Reply to Malthus' essay on population, 1807, 1 vol., 8 vo., boards.
Edmunds, moral and political economy, 1828, 1 vol., 8 vo., boards.
Money and its vicissitudes as they affect national industry, 1837, 1 vol., 8 vo., boards.
A letter to political economists on the subject of value, 1821, 1 vol., 8 vo., boards.
Political dissertation on the nature and causes of value, 1825, 1 vol., 8 vo., boards.
Gray, the social system; a treatise on the principles of exchange, 1831, 1 vol., 8 vo., cloth.
Hamilton, progress of society, 1830, 1 vol., 8 vo., bound.
Porter, progress of the nation in the 19th century—part 1, population and production—part 2, revenue and expenditures, 1838, 2 vols., 12 mo., cloth.
MacCulloch, statistical account of the British Empire, (second edition,) 2 vols., 8 vo., royal, cloth.
MacCulloch, dictionary of commerce and navigation, (second edition, 1839, 1 vol., 8 vo., royal, cloth.
Macpherson, annals of commerce, manufacturers, fisheries and navigation, 1805, 4 vols., 4to, cloth.
Reuss, trade between Great Britain and the United States, 1833, 1 vol., 8 vo., boards.
Browning, domestic and financial condition of Great Britain, and of the politics and statistics of France, Russia, Prussia, and Austria, 1834, 1 vol., 8 vo., boards.
Milburn, oriental commerce, 1813, 2 vols., 4to, bound.
Turkey, maritime geography and statistics, 1815, 4 vols., 8 vo., boards.
Report on the silk trade, 1 vol.
Risdell, industry of nations, 1 vol.

Agriculture and Horticulture.

Loridon, encyclopedia of agriculture, (third edition,) 1838, 1 vol., 8 vo., royal, cloth.
Loridon, encyclopedia of gardening, (second edition,) 1 vol., 8 vo., royal, cloth.
Loridon, encyclopedia of plants, 1836, 1 vol., 8 vo., royal, cloth.
Loridon, suburban gardner, 1838, 1 vol., 8 vo., cloth.
Low, practical agriculture, 1838, 1 vol., 8 vo., cloth.

Digitized by Google

Toune, farmers' directory, 1830, 1 vol., 4to, cloth.
Adam, essay on agriculture, 1789, 2 vols., 8 vo., bound.

Natural History.

Smellie, philosophy of natural history, (original edition,) 1790, 2 vols., 4to, bound.
Playfair, illustrations of the Huttonian theory of the earth, 1802, 1 vol., 8 vo., bound.
(Jameson,) comparative view of the Huttonian and Neptunian system of geology—in answer to Playfair's illustrations—1802, 1 vol., 8 vo., bound.
Burnet, theory of the earth, 1697, 1 vol., folio, bound.
Philips treatise on geology, (from Lardner's cyclopedia,) 2 vols., 12 mo., cloth.
Howard, history and structure of the earth, 1797, 1 vol., 8 vo., bound.
Kidd, geological essays, 1815, 1 vol., 8 vo., boards.
DeMaillett's Tellamiad, 1750, 1 vol., 8 vo., bound.
Mammatt's geological facts, 1836, 1 vol., 4to, cloth.
Hany, traite de mineralogie, 1801, 4 vols., 8 vo., bound.
Hany, atlas to mineralogie, 1 vol., 4to, bound.
Hany, crystallographie, 2 vols., 8 vo., bound.
Delamatherie, theorie de la terre, (second edition,) 1797, 5 vols., 8 vo., bound.
Rome de l'Isle, crystallographie, &c., (second edition,) 1783, 4 vols., 8 vo., bound.
Leouhard, Grunzirge der Oryctrurguraie, 1833, 1 vol., 8 vo., bound.
Memoires de l'Inititut national des sciences et arts, (mathematics and physics,) 4 vols., 4to, bound.
Swainson's preliminary discourse, Lardner's, cyclopedia, 1 vol. 12 mo., cloth.
Swainson's geopraphy and classification of animals, Lardner's cyclopedia, 1 vol., 12 mo., cloth.
Swainson's quadrupeds, Lardner's cyclopedia, 1 vol., 12 mo., cloth.
Swainson's menageries, do 1 vol., 12 mo., cloth.
Swainson's birds, do 2 vols., 12 mo., cloth.
Swainson's fishes and reptiles, do 2 vols., 12 mo., cloth.
Henslow, principles of botany, Lardner's cyclopedia, 1 vol., 12 mo., cloth.
Richardson, Fauna Boreali Americana, 1859, 1831, 2 vols., 4to, cloth.
Gardens and menagarie of the zoological society, 1835, 2 vols., 8 vo., cloth.
Lawrence, lectures on man, 1835, 1 vol., 12 mo., cloth.
Pritchard, researches on the physical history of mankind, (new edition,) 1836, 2 vols., 8 vo., cloth.

Digitized by Google

From Constable's Miscellany—

Willson's and Bonaparte's American ornithology, 4 vols.
White, natural history of Shelbourne, 1 vol.
Brown's book of butterflies, 3 vols.
Mudie, guide to the observation of nature, 1 vol.
Bell, phenomena of nature, 1 vol.

Camper, dissertation physique sux les tetes d'Hommes, &c., 1791, 1 vol., 4to bound.

Morceaux de Plinie, (hist. nat.) 1807, 2 vols., 8 vo., bound.

Harcourt, doctrine of the deluge, &c., 1838, 2 vols., 8 vo., cloth.

De Luc, geological travels.

Audibon's birds of America 4,804 plates, 8 vols.

Physics, Mechanics, Useful Arts, Mathematics, &c.

Public works of Great Britain, 1838, 1 vol., folio, royal, bound.

Barlow, on the strength of timber, cast iron, locomotive engines, &c., 1837, 1 vol., 8 vo., cloth.

Pasley, on limes, calcareous cements, &c., 1838, 1 vol., 8 vo., cloth.

Frisi, on rivers and torrents and navigable canals, 1818, 1 vol., 4to, boards.

Beaufoy's nautical and hydraulic experiments, &c., 1834, 1 vol., 4to, cloth.

Tredgold, on the steam engine and its application to manufacture, navigation and railways, 1838, (Woolhouse's edition,) (1 vol., plates,) 2 vols., 4to, cloth.

Armstrong, on boilers, 1829, 1 vol., cloth.

Hughes, on making and repairing roads, 1838, 1 vol., 8 vo., boards.

Reid, (Colonel,) on the law of storms, 1838, 1 vol., 8 vo., boards.

Jameson, dictionary of mechanical science, arts and manufactures, 1837, 2 vols., 4to, boards.

Sopwith, treatise on trometrical drawing, as applicable to architecture and engineering, 1838, 1 vol., 8 vo., cloth.

Baines, history of cotton manufacture, 1835, 1 vol., 8 vo., bound.

Dupin, commercial power of Great Britain, 1825, 2 vols., 8 vo., bound.

Dupin, atlas to, 1 vol., 4to, bound.

Higgins, the earth, its physical condition, 1836, 1 vol., 18 mo., cloth.

Telford, on railroads, by H. Parnell, 1838, 1 vol., 8 vo., cloth.

Wood, on railroads, 1838, 1 vol., 8 vo., cloth.

Babbage, on the economy of machinery and manufactures, 1835, 1 vol., 12 mo., cloth.

London, encyclopedia of architecture, 1839, 1 vol., 8 vo., royal, cloth.

Digitized by Google

Hope, architecture, 2 vols., 8 vo., imperial, cloth.
Alse, dictionary of arts, manufactures and mines, 1839, 1 vol., 8 vo., royal, cloth.
Ross, (Captain,) on steam navigation, 1828, 1 vol., 4to, bound.
Goodwin, rural architecture, 1835, 2 vols., 4to, royal, cloth.
Brees, appendix to railway practice, 1839, 1 vol., 4to, cloth.
Davy, architect, engineer and builders' manual, 1839, 1 vol., 8 vo., cloth.
Richardson, on warming and ventilation of buildings, and on heated water circulation, 1837, 1 vol., 8 vo., bound.
Cressy, on bridge building, and on the equilibrium of vaults and arches, (2 fascic,) 1 vol., folio, bound.
Polchampton, gallery of nature and art, 1815, 6 vols., 8 vo., bound.
Nichol, phenomena of the solar system, 1838, 1 vol., 8 vo., cloth.
Nichol, architecture of the heavens, 1839, 1 vol., 8 vo., cloth.
Mosely, astronomy, 1 vol., 12 mo., cloth.
Herschell, astronomy, (Lardner cyclo.,) 1 vol., 12 mo., cloth.
Humboldt, Recuiel d'observations Astronomiques, trigonometriques et de measures Barometriques, &c., 1810, 2 vols., 4to, royal, bound.
Humboldt's Vues des Cordillers, et Monumens des peuples indigenes d'Ameriques, (proof plates,) 1813, 1 vol., folio, imperial, bound.
Hutton's course of mathematics, ed. Ramsay, 1 vol., 8 vo., cloth.
Thompson, elements of Euclid, 1837, 1 vol., 8 vo., cloth.
Mudie, popular mathematics, 1836, 1 vol., 18 mo., cloth.
Bland, algebraical problems, 1832, 1 vol., 8 vo., bound.
From Lardner's Cyclopedia—
Lardner, arithmetic, 1 vol., 12 mo., cloth.
Lardner and Kater, mechanics, 1 vol., 12 mo., cloth.
Lardner and Kater, hydrostatics and pneumatics, 1 vol., 12 mo., cloth.
Lardner, heat, 1 vol., 12 mo., cloth.
Brewster, optics, 1 vol., 12 mo., cloth.
Donovan, chemistry, 1 vol., 12 mo., cloth.
Donovan, domestic economy, 2 vols., 12 mo., cloth.
De Morgan, probabilities, 1 vol., 12 mo., cloth.
Porter, silk manufacture, 1 vol., 12 mo., cloth.
Holland, manufacture in metal, 3 vols., 12 mo., cloth.
Porter, manufactures in porcelain and glass, 1 vol., 12 mo., cloth.
Powell, history of natural philosophy, 1 vol., 12 mo., cloth.
Herschell, preliminary discourse on natural philosophy, 1 vol., 12 mo., cloth.
Newton, Principia Philosophiæ Naturalis, (ed. Le Seur and Jacquia, ninth edition,) 1833, 2 vols., 8 vo., boards.

Digitized by Google

MacLaurin's account of Newton's philosophical discoveries, 1750, 1 vol., 8 vo., bound.
Pemberton's view of the philosophy of Newton, 1728, 1 vol., 4to, bound.
Webster, elements of physics, 1839, 1 vol., 12 mo., cloth.
Pasley, theory of natural philosophy on mechanical principles, 1 vol., 8 vo. boards.
Boyle, (Robert,) philosophical works, arranged by Shaw, 1725, 3 vols., 8 vo., bound.
Priestley, on electricity, 1775, 2 vols., 8 vo., bound.
Priestley, on air, 1790, 3 vols., 8 vo., bound.

Transactions of learned Societies and Scientific Periodicals.

The philosophical transactions, Hutton's abridgment, 18 vols., 4to, bound.
The philosophical transactions, abridged by Lowthorp and Motte, to the year 1720, 5 vols, 4to, bound.
Martyn and Chambers, memoirs of the royal academy of sciences, of Paris, 1742, 5 vols., 8 vo., bound.
Silliman's journal of sciences and the arts, 4 numbers.
Antiquates Americanæ, sioe scriptores septentrionales rerum anti, Columbianarum, in America, edited by the royal society of northern antiquaries, 1 vol., 4to, royal.

Encyclopedias, Reviews, &c.

Encyclopedia Britannica, (new edition,) not finished, half vols., 38 vols., 4to, boards.
British Cyclopedia, (Partington,) 1838, 10 vols., 4to, small, cloth.
Lardner's cabinet Cyclopedia, all the finished treatises—(see separate works.)
British colonial library, 1838—(see separate works.)
Constable's miscellany, 1827–30, 81 vols., 18 mo., cloth—(see separate subjects.)
The library of entertaining knowledge, 42 vols., 12 mo., cloth.
Conversationes Lexicon, 13 vols., 12 mo., cloth.
The Edinburg review, bound in separate numbers, with index, (137,) 137 vols, 8 vo., bound.
The quarterly review, 59, and index, 60 vols., 8 vo., bound.
The foreign quarterly review, 12 vols, 8 vo., bound.
The British and foreign review, 1838, 7 vols., 8 vo., bound
The retrospective review, (whole set,) 16 vols., 8 vo., cloth.
The Westminster review, 22 vols., 8 vo., cloth.
The Edinburg philosophical journal, 10 vols., 8 vo., cloth.

Collected Miscellaneous Works, &c.,

Bacon, Lord Verulam's works, edited by Basil Montaga, 1825–1834, 17 vols., 8 vo., boards.
Burke's works, by Rogers, 1837, 2 vols., 8 vo., royal, boards.

Digitized by Google

Sir William Temple's works, (Cowper's copy,) 1720, 2 vols., folio, bound.
Sir William Jones' works, 1799, 6 vols., 4to, bound.
Gibbon's miscellaneous works, 1790, 3 vols., 4to, bound.
Grattan's miscellaneous works, 1822, 1 vol., 8 vo., boards.
Sir Thomas Browne's works, 1835–6, 4 vols., 8 vo., boards.
Doctor Vicerrimus Knox's works, 1834, 7 vols., 8 vo., boards.
Bolingbroke's works, 1777, 11 vols., 8 vo., bound.
do letters and correspondence while secretary of state to Queen Anne, 1798, 4 vols., 8 vo., bound.
Bentley's works, 1836, 3 vols., 8 vo., boards.
Raleigh's works, 1751, 2 vols., 8 vo., bound.
Doctor Johnson's works, 1825, 9 vols., 8 vo., cloth.
Milton's prose works, 1836, 1 vol., 8 vo., royal, cloth.
Hobbes' works, by Molesworth, 1839, 3 vols., 8 vo., cloth.
Warburton's works, by Hurd, 1811, 12 vols., 8 vo., cloth.
Lord Littleton's works, 1775, 1 vol., 4to, bound.
Voltaire's works, by Franklin, 1771, 33 vols., 12 mo., bound.
Pope's works, 1752, 9 vols., 8 vo., bound.
Clarendon, (Earl,) collection of tracts and essays, from original manuscripts, 1727, 1 vol., folio, bound.
Correspondence of the earl of Chatham, edited by the executors of his son, 1838–1840, 4 vols., 8 vo., cloth.
Evelyn's miscellaneous writings, by Upcott, 1825, 1 vol., 4to, boards.
Hume's essays, moral, philosophical and political, (bound uniform with history of England,) 1768, 2 vols., 4to, bound.
Hume's correspondence, 1 vol., 4to, bound.
Boyle's (Robert,) works, 1754, 5 vols, folio, bound.
Adam Smith's works, 5 vols., 8 vo., bound.
DeCarte's opera omnia, 4 vols.
Condillac, ouvres completes, 1798, 23 vols, 8 vo., royal, bound.
Sevigne, (Madame,) lettres, 1836, 2 vols, 8 vo., royal, bound.
Sir Humphrey Davy's works, (two volumes only published,) by John Davy, 1839, 2 vols, 8 vo., cloth.
Hill, on national education, 1836, 2 vols., 12 mo., cloth.
Wyse, on education, 1839, 1 vol., 8 vo., cloth.
Public education, plans for the government and instruction of boys in large numbers, as practiced at the Harlewood school, 1825, 1 vol., 8 vo., boards.
History of Christ's hospital, 1821, 1 vol., 8 vo., boards.
Heinroth on education and self-formation, translated from the German, 1838, 1 vol., 12 mo., boards.

Dictionaries, Grammars, &c.

Hedericus, Græcum Lexicon, edited by Larcher, 1825, 1 vol., 4to, boards.
Mathiæ, copius Greek grammar, by Blomfield, fifth edition, by Kenrick, 1837, 2 vols., 8 vo., cloth.

Digitized by Google

Morelli, Lexicon, Græco prosody, edited by Maltby, 1815, 1 vol., 4to, bound.
Ainsworth, Latin dictionary, edited by Beaton and Ellis, 1836, 1 vol., 8 vo., royal, cloth.
Ainsworth, Latin dictionary, 1751, 2 vols., folio, bound.
Harris' hermes, or general grammar, (third edition,) 1761, 1 vol., 8 vo., bound.
Wilkins' essay towards a real character and a philosophical language, 1768, 1 vol., folio, bound.
Johnson's dictionary, (seventh edition,) 1785, 1 vol., folio, bound.
Johnson's dictionary from the author's last folio, 1833, 1 vol., 8 vo., royal, cloth.
Webster's dictionary, (London edition,) 1832, 1 vol., 8 vo., royal, cloth.
Wilson, French and English dictionary, 1837, 1 vol., 8 vo., royal, cloth.
Crabbe's universal historical dictionary, 1823, 2 vols., 4to, boards.
Etymological dictionary of the Gælic language, by the highland society of Scotland, 1828, 2 vols., 4to, boards.
Marsden's Malayan dictionary, 1812, 1 vol., 4to, boards.
Bosworth's Anglo-Saxon dictionary, 1 vol., 8 vo., royal cloth.
Bosworth's elements of Anglo-Saxon grammar, 1 vol., 8 vo., boards.

Voyages and Travels.

Cooley, history of maritime discovery, (in Lardner's cyclopedia, 3 vols, 12 mo., cloth.
The modern traveler, by Condor, Vancouver's voyage round the world, 1801, 6 vols., 8 vo., bound.
Kotzebue's voyage round the world, 1830, 2 vols., 8 vo., bound.
Beechey's voyage to the Pacific and Behring's straits, 1831, 2 vols., 8 vo., bound.
Wilson, voyage round the world, 1835, 1 vol., 8 vo., cloth.
Labillardiere, voyage in search of LaPerouse, 1800, 1 vol., 4to, bound.
Arago, voyage of Freycinet, 1823, 1 vol., 4to, bound.
Hakluyt, voyages supplementary to, 1812, 1 vol., 4to, bound.
Lisiansky, voyage round the world, 1814, 1 vol., 4to, bound.
Dixon, voyage round the world, particularly to the north-west coast of America, 1789, 1 vol., 4to, bound.
Parkinson, (Sidney,) voyage to the south seas, (in Cooke's 1st,) 1 vol., 4to, bound.
LaPerouse, voyage round the world, 1799, 2 vols., 4to, bound.
LaPerouse, atlas to, 1 vol., folio, bound.
Flinder's voyage to Terra Australis, 1814, 2 vols., 4to, large, boards.

Digitized by Google

Flinder's atlas and charts to, 1 vol., folio, pamphlet.
King, Darwin and Fitzroy, voyages of the Adventure and Beagle, 1839, 4 vols., 8 vo., cloth.
Foster, voyage to the S. Atlantic, 1834, 2 vols., 8 vo., boards.
Crawfurd, journal of an embassy to Siam, 1830, 2 vols., 8 vo., cloth.
Crawfurd, journal of an embassy to Ara, with an appendix by Dr. Buckland, 1834, 2 vols., 8 vo., cloth.
Bouganville, voyage to the Malouines, (Falkland Islands,) by Pernetty, 1771, 1 vol., 4to, bound.
Wilson, Pelew Islands 1803, 1 vol., 4to, bound.
Graham, journal of a residence in Chili, and voyage from Chili to Brazil, 1824, 1 vol., 4to, bound.
Graham, voyage and residence in Brazil, 1824, 1 vol., 4to, bound.
Ellis, tour through Hawia, 1826, 1 vol., 8 vo., bound.
Depous, travels in South America, 1807, 2 vols., 8 vo., bound.
Four years in the West Indies, by the son of a military officer, 1833, 1 vol., 8 vo., boards.
Walsh, notices of Brazil 1830, 2 vols., 8 vo., cloth.
Temple, travels in Peru and Potosi, 1830, 2 vols., 8 vo., cloth.
Caldcleugh, travels in South America, 1825, 2 vols.. 8 vo., cloth.
Hall, (Captain,) journal on coasts of Chili, Peru and Mexico, 1824, 2 vols,, 8 vo., bound.
Brand, voyage to Peru and passage of the Andes in the winter of 1827, 1 vol., 8 vo., bound.
Ulloa, voyage to South America, 1760, 2 vols., 8 vo., bound.
Haigh, Buenos Ayres, Chili and Peru, 1831, 1 vol., 8 vo., cloth.
Humboldt, personal narative of travels in the Æquinoctial regions of America, translated by Helen Maria Williams, (copy not quite perfect,) 1839, 8 vols., 8 vo., cloth.
Phipps, voyage towards north pole, 1776, 1 vol., 4to, bound.
Chastelleux, travels in North America, 1787, 2 vols., 8 vo., bound.
Mackenzie, voyage to the Frozen and Pacific oceans in 1792, 1793, 1801, 1 vol., 4to, bound.
Grund, Americans in their moral, social and political relations, 1837, 2 vols., 8 vo., bound.
Cooper, (Dr. Thomas,) some information respecting America, 1794, 1 vol., 8 vo., bound.
James, account of Long's expedition to the Rocky Mountains, 1823, 3 vols., 8 vo., boards.
Talbot, five years in Canada, &c., 1824, 2 vols., 8 vo., bound.
Tudor, tour in North America and Mexico, 1834, 2 vols., 8 vo., boards.

Digitized by Google

Hennepin, discoveries in America, &c., 1698, 1 vol., 8 vo., bound.
Bartram's, travels in Georgia and Florida, 1 vol., 8 vo. bound.
Bartram, the French translation, 2 vols., 8 vo.
Parry's voyages to the Arctic regions; the 1st, 2d and 4th, supplement to 1st North Georgia Gazette, &c., 1823–28, 4 vols., 4to, bound.
Ross' first voyage to Arctic regions, 1 vol., 4to, bound.
Ross' second voyage and appendix, 2 vols., 4to, bound.
Franklin first and second overland journeys to the Arctic Ocean, 2 vols., 4to, bound.
Michaux, travels west of the Alleghanies, 1805, 1 vol., 8 vo., bound.
Chateaubriand, travels in America and Italy, 1828, 2 vols., 8 vo., boards.
LeBruyn, travels, into Muscovy, Persia, &c., 1737, 2 vols., folio bound.
Craven, (Richard Keppel,) tour in Naples, 1821, 1 vol., 4to., boards.
Laurent, classical tour in Greece, Turkey and Italy, 1821, 1 vol., 4to, boards.
Henderson, journal of residence in Iceland, 1819, 1 vol., 8 vo., boards.
Croker, researches in the south of Ireland, 1824, 1 vol., 4to, boards.
Mirabeau, letters during his residence in England, 1832, 2 vols., 12 mo., boards.
Pinkerton's Russia, 1833, 1 vol., 8 vo., bound.
Standish, shores of the Mediterranean, 1838, 2 vols., 8 vo., boards.
Laing, residence in Norway, &c., 1827, 1 vol., 8 vo., boards.
Laing, tour in Sweden, 1838, 1 vol., 8 vo., cloth.
Hughes, travels in Greece and Albania, 1830, 2 vols., 8 vo., cloth.
Hobhouse, journey in Albania, (second edition,) 2 vols., 4to, boards.
Hakewell, picturesque tour of Italy, 1820, 1 vol., 4to, boards.
Lyall's travels in Russia, 1825, 2 vols., 8 vo., boards.
Simond's Switzerland, 1822, 2 vols., 8 vo., boards.
Calabria, by a general officer in the French army, 1832, 1 vol., 8 vo., boards.
Edward Daniel Clarke, travels in various countries of Europe, Asia and Africa, (fourth edition,) 1816, 11 vols., 8 vo., boards.
Slade, travels in Turkey, Greece and Malta, 1837, 2 vols., 8 vo., cloth.
Traut, journey through Greece, &c., 1830, 1 vol., 8 vo., bound.
Dibdin, bibliographical, antiquarian and picturesque tour in

Digitized by Google

France and Germany, (second edition,) 1829, 3 vols., 8 vo., cloth.
Bell, (Dr. John,) observations on Italy, 1825, 1 vol., 4to, bound.
Dodwell, tour in Greece, 1819, 2 vols., 4to, boards.
Walsh, (Dr.,) journey from Constantinople to England, 1828, 1 vol., 12 mo., bound.
Dallaway, tour to the Levant, 1797, 1 vol., 4to, bound.
Thomson, travels in Sweden, 1813, 1 vol., 4to, bound.
Brooke, (Sir A. Capell,) winter in Lapland and Sweden, 1827, 1 vol., 4to, boards.
James, travels in Germany, Russia and Poland, 1816; Leigh's travels in Egypt, 1816, 1 vol., 4to, bound.
Bowdich, Madeira, 1825, 1 vol., 4to, boards.
Evans, classic connoiseur in Italy, 1835, 3 vols., 8 vo., boards.
Roswell Johnson's tour to the Hebrides, 1813, 1 vol., 8 vo., bound.
Smyth, (Capt.,) Sardinia, 1828, 1 vol., 8 vo., bound.
Hooker, tour in Iceland, 1813, 2 vols., 8 vo., bound.
Barrow's history of voyages into the Arctic regions, 1818, 1 vol., 8 vo., bound.
Stanhope's Greece, with life of Mehemet Ali, 1824, 1 vol., 8 vo., bound.
Quin, visit to Spain, 1824, 1 vol., 8 vo., cloth.
Planche, descent of the Danube, 1838, 1 vol., 8 vo., cloth.
Holderness, Riga and Crimea, 1823, 1 vol., 8 vo., cloth.
Naples and the Campane Felice, 1813, 1 vol., 8 vo., bound.
Richardson, travels in the Mediterranean, Syria and Egypt, &c., 1822, 2 vols., 8 vo., bound.
Galt, letters from the Levant, 1813, 1 vol., 8 vo., boards.
Reresby's travels and memoirs, 1821, 2 vols., 8 vo., boards.
Raumer's England in 1835, 1836, 2 vols., 8 vo., bound.
Lady Morgan's France, (first,) 1817, 2 vols, 8 vo., bound.
Turnbull's Austria, 2 vols., 8 vo., cloth.
Paget's Hungary, 2 vols., 8 vo., cloth.

From Constable's Miscellany—

Captain Hall's voyages, 3 vols.
Martin's Tonga Islands, 2 vols.
Symes' embassy to Ara, 2 vols.
Shipwrecks and disasters at sea, 2 vols.
Cochrane's pedestrian tour, 2 vols.
Inglis, Switzerland, France and the Pyrenees, 2 vols.
Russell's tour in Germany, &c., 2 vols.
Adventures of British seamen, 1 vol.
Perils and captivity, 1 vol.
Roberts' Central America, 1 vol.
St. John, residence in Normandy, 1 vol.
Conway, Norway, Sweden and Denmark, 1 vol.
Sinclair, autumn in Italy, 1 vol.

Digitized by Google

Davy, travels in Ceylon, 1821, 1 vol., 4to, boards.
Fellows' excursion in Asia Minor, 1839, 1 vol., royal, 8 vo., boards.
Madden's travels in Turkey, Egypt, Nubea and Palestine, 1833, 2 vols., 12 mo., boards.
Lamartine's travels in the holy land, translated by Huish, 1837, 1 vol., 8 vo., boards.
Smith and Dwight, missionary researches in America, &c., 1834, 1 vol., 8 vo., boards.
Fraser, journey into Khorassan, 1825, 1 vol., 4to, boards.
St. John's Egypt and Mahommed Ali, 1834, 2 vols., 8 vo., boards.
The voiage and travaile of Sir John Maundevillee, Knight, with notes by Halliwell, 1839, 1 vol., 8 vo., boards.
Bernier, travels in the Mogul Empire, translated by Brock, 1826, 2 vols., 8 vo., boards.
Lane, modern Egyptians, 1836, 2 vols., 12 mo., boards.
Fraser, travels in the Persian provinces near the Caspian sea, 1826, 1 vol., 4to, boards.
Buckingham, travels in Assyria and Persia, 1830, 2 vols., 8 vo., boards.
Cochrane, pedestrian tour through Russia, Tartary, to the frontiers of China and Kamscatska, 1814, 2 vols., 8 vo., boards.
Chandler, travels in Asia Minor and Greece, 1817, 1 vol., 4to, bound.
Voyage of Nearchus, by Vincent, 1797, 1 vol., 4to, bound.
Voyage de Nearque, (Paris, 1800,) 1 vol., large 4to, bound.
Souini, travels in Upper and Lower Egypt, by order of the French government, 1809, 1 vol., 8 vo., bound.
Salt, travels in Abysinnia, 1814, 1 vol., 4to, royal, cloth.
Hall, voyage to Corea and Sov-choo, 1818, 1 vol., 4to, bound.
Brooke, sketches of Spain and Morocco, 1831, 2 vols., 8 vo., cloth.
Webster, travels in the Crimea, Turkey and Egypt, 1830, 2 vols., 8 vo., cloth.
Chateaubriand, travels in Greece, Egypt, Barbary, &c., 1812, 2 vols., 8 vo., cloth.
Shaw, (Dr.) travels in Barbary and the Levant, 1737, 1 vol., folio, bound.
Rich, (Claudius,) journey to the site of Babylon in 1811, memoir on the ruins; second memoir, and journey to Persopolis, 1839, 1 vol., 8 vo., cloth.
Tavernier, collections and relations not printed in his voyages, 1680, 1 vol., folio, bound.
Golouin, captivity in Japan, 1824, 3 vols., 8 vo., cloth.
Thunberg, travels in Europe, Asia and Africa, (third edition,) 1795, 4 vols., 12 mo., bound.
Archer, tour in Upper India and the Himalaya mountains, 1833, 2 vols., 8 vo., bound.

Digitized by Google

Stoqueler, pilgrimage in Khurdistan and Persia, 1832, 2 vols., 8 vo., bound.
Voyage de Pallas en differentes Provinces de l'empire de Russe, and dans l'Arie septentrionale, (Paris edition,) 5 vols., 4to, bound.
Atlas and plates, do 1 vol., folio, bound.
Mollien, travels in the interior of Africa in 1818, 1820, 1 vol., 4to, boards.
Caille, travels through Central Africa to Timbuctoo, 1830, 2 vols., 8 vo., boards.
Thompson, travels in Southern Africa, 1827, 2 vols, 8 vo., boards.
Hamilton's Egypt, 1809, 1 vol., 4to, bound.
Barrow, travels in Southern Africa, 1806, 2 vols, 4to, boards.
Barrow, travels in China, 1806, 1 vol., 4to, boards.
Barrow, voyage to Cochin China, 1806, 1 vol., 4to, boards.
Tuckey's expedition to the Zaire or Congo, 1818, 1 vol., 4to, bound.
Isaac, travels in Eastern Africa, 1836, 2 vols., 12 mo., bound.
Perry's view of the Levant, 1 vol.
Bruce's travels in Africa, 5 vols., 4to, bound.
Burgess, Greece, 2 vols.
British America, 3 vols.

Biography.

Roscoe's life of Leo X., 1827, 4 vols., 8 vo, cloth.
Roscoe's eminent British lawyers, (Lardner's cyclop.,) 1 vol., 12 mo., cloth.
Roscoe's life of Lorenzo de Medici, 1825, 2 vols., 8 vo., cloth.
Roscoe's life of Lorenzo de Medici, small edition, 1836, 1 vol., 12 mo., cloth.
Memoirs and correspondence of Samuel Pepys, secretary to the admiralty in the reigns of Charles II., and James II., 1828, 5 vols., 8 vo., boards.
Memoirs of Henry the Great, and the court of France, during his reign, 1824, 2 vols., 8 vo., boards.
Salt's life and correspondence, 1834, 2 vols., 8 vo., boards.
Stapleton's life of Canning, 1831, 3 vols. 8 vo., cloth.
Gilman, life of Coleridge, 1838, 3 vols., 8 vo., cloth.
Mirabeau's memoirs, by himself, 1835, 4 vols., 8 vo., cloth.
Life and times of archbishop Land, by Lawson, 1829, 2 vols., 8 vo., boards.
Plutarch's lives, by Langhorne, 1819, 6 vols., 8 vo., bound.
MacDiarmid, lives of British statesmen, 1838, 1 vol., 8 vo., cloth.
Seaward, anecdotes of distinguished persons, 1796, 6 vols., 8 vo., bound.
Jameson, (Mrs.) romance of biography, 1837, 2 vols., 12 mo., boards.
Memoirs of the court of Henry VIII., by Mrs. A. T. Thompson, 1826, 2 vols., 8 vo., boards.

Digitized by Google

Sully's memoirs, 1778, 5 vols., 8 vo., bound.
Sherburne, life of Paul Jones, 1825, 1 vol., 8 vo., boards.
Capel, earl of Essex, life and letters, 1773, 1 vol., 8 vo., bound.
Taylor's memoirs of Guy Joli, secretary to Cardinal Retz, 1775, 3 vols., 12 mo., bound.
Howard's lady Jane Grey and her times, 1822, 1 vol., 12 mo., bound.
Stebbing, lives of the Italian poets, 1832, 3 vols., 12 mo., bound.
Benson, memoir of Arthur Collier and writings, 1837, 1 vol., 8 vo., boards.
Lister, life and administration of the earl of Clarendon, with original correspondence, &c., 1838, 3 vols., 8 vo., cloth.
Brougham, historical sketches of statesmen of the reign of Geo. III., 1839, 2 vols., 8 vo., royal, cloth.
Garrick's life and private correspondence with the most celebrated persons of his time, 1831, 2 vols., 4to, royal, boards.
Thomson, memoirs of Raleigh, 1830, 1 vol., 8 vo., boards.
Brown's life of Howard, 1818, 1 vol., 4to, bound.
Hayley's life of Cooper, 1803, 3 vols., 4to, bound.
Lord Kaimes, memoirs of life and writings, 1807, 2 vols., 4to, bound.
Black's life of Tasso, 1810, 2 vols., 4to, bound.
Caley, memoirs of Sir Thomas Moore, with a new translation of the Utopia, 1808, 2 vols., 4to, bound.
Zouch, memoirs of Sir Philip Sidney, 1809, 1 vol., 4to, bound.
Bryan, biographical and critical dictionarys of painters and engravers, 1816, 2 vols., 4to, boards.
Lives of eminent persons, from the library of useful knowledge, 1833, 1 vol., 8 vo., cloth.
Aikin, lives of Selden and Usher, 1812, 3 vols., 4to, boards.
Nares, life and administration of Lord Burleigh, 1828, 3 vols., 4to, boards.
Buck's life of John, duke of Marlborough, (family library,) 1839, 1 vol., 18 mo., cloth.
Boswell's life of Johnson, 1826, 4 vols., 8 vo., cloth.
Vaughan's life of Wycliffe, 1831, 2 vols., 8 vo., cloth.
Bacon, life of Francis I., and his times, 1830, 2 vols., 8 vo., cloth.
Prior's life and character of Burke, 1839, 1 vol., 8 vo., cloth.
Gorton, general biographical dictionary, 1838, 3 vols., 8 vo., cloth.
Napier of Merchistown's life and writings, by Stuart Minto, 1787, 1 vol., 4to, bound.
Memoirs of learned ladies of Great Britain, by Ballard, 1752, 1 vol., 4to, bound.
Lord Holland, life and writings of Lope de Vega and Guillien de Castro, 1817, 2 vols., 12 mo., boards.
Life of Wickliffe, with a list of his works, 1826, 1 vol., 12 mo., boards.

Digitized by Google

Benger, (Miss,) memoirs of Mary, Queen of Scots, 1823, 2 vols., 12 mo., boards.
Mackintosh's memoirs, edited by his son, (second edition,) 1836, 2 vols., 8 vo., cloth.
Cooke's life of Shaftesbury, 1836, 2 vols., 8 vo., cloth.
Wright's life and reign of William IV., 2 vols., 8 vo., cloth.
Memoirs of Lady Fanshawe, &c., by herself, 1830, 1 vol., 12 mo., cloth.
Harte's life of Gustavus Adolphus, 1759, 2 vols., 4to, bound.
Jostin's life of Erasmus, 1759, 1 vol., 4to, bound.
Gifford, history of the political life of William Pitt, 1809, 3 vols., 4to., boards.
Johnson, life and correspondence of Gen. Greene, (Charleston, S. Carolina,) 1822, 3 vols., 4to, boards.
Anecdotes and speeches of Wm. Pitt, earl of Chatham, 1810, 3 vols., 8 vo., boards.
Coxe's memoirs of Lord Walpole, (third edition,) 1820, 2 vols., 8 vo., cloth.
Memoirs of Joan de Arc, 1 vol., 12 mo., cloth.
History of Philip Comines and of Guieciardin, 1601 and 1599, 1 vol., folio, bound.
Johnson's life of Coke, 1837, 2 vol., 8 vo., boards.
Johnson's memoirs of Selden, 1835, 1 vol., 8 vo., bound.
Maceroni, (Col.,) memoirs of his life and adventures, by himself, 1838, 2 vols., 8 vo., boards.
Hosack's memoirs of Clinton, (New York,) 1829, 1 vol., 4to, boards.
Philip's recollection of Curran, 1822, 1 vol., 8 vo., bound.
Las Casas, journal of Napoleon at St. Helena, 1822, 4 vols., 8 vo., bound.
Coxe's life and administration of Sir Robert Walpole, earl of Oxford, 1800, 3 vols., 8 vo., bound.
Lavalette's memoirs, 1831, 2 vols., 8 vo., boards.
Galt's autobiography, 1833, 2 vols., 8 vo., boards.
Memoirs of Mareschal Ney, 1834, 2 vols., 8 vo., bound.
Memoirs of Col. Hutchinson, by his widow, 1806, 1 vol., 4to, bound.
Lord Teignmouth's life of Sir William Jones, 1806, 1 vol., 4to, bound.
Otter, life and remains of Ewd. Daniel Clarke, 1825, 2 vols., 8 vo., cloth.
Sir Egerton Brydges, autobiography, 1834, 2 vols., 8 vo., cloth.
Howard's life and times of Wolsey, 1834, 1 vol., 8 vo., bound.
Rogers, lives of the 12 Cæsars, 5 vols., 8 vo., bound.
Barrington, (Sir Jonah,) sketches of his life and times, 1827, 2 vols., 8 vo., bound.
Skinner's life of Gen. Monk, 1733, 1 vol., 8 vo., cloth.

Digitized by Google

Lives of the ancient philosophers, 1701, 1 vol., 8 vo., bound.
Leigh Hunt's Byron, 2 vols., 8 vo., cloth.
Moore's life of Byron, 3 vols., 8 vo., cloth.
Dallas, recollection of Byron, 1824, 1 vol., 8 vo., bound.
Gamba's Byron, 1 vol., 8 vo., cloth.
Memoirs of Louis XVIII., by himself, 1832, 2 vols., 8 vo., cloth.
Lodge's portraits and historical memoirs of distinguished men in Great Britain, 1835, 12 vols., 4to, bound.
Knight's gallery of portraits and memoirs, 1833, 7 vols., 4to, cloth.
Dumont's recollections of Mirabeau, 1832, 1 vol., 8 vo., bound.
Caulincort's recollections, 1838, 2 vols., 8 vo., bound.
Todd's lives of Gower and Chaucer, 1810, 1 vol., 8 vo., bound.
Random recollections of the lords and commons, (Grant,) second series, 1836–8, 4 vols., 8 vo., bound.
Berwick's lives of Marcus Valerius, &c., and of the five first Cæsers, 1813, 1 vol., 12 mo., bound.
Cuvier's eloges historiques, 1819, 3 vols., 8 vo., bound.
Philips, life of Cardinal Pole, 1764, 1 vol., 4to, bound.
Melville, (Sir James,) memoirs of affairs of state under the reigns of Elizabeth, Mary Queen of Scots and King James, 1683, 1 vol., folio, small, bound.
Life of Isaac Walton, 1830, 1 vol., 4to, bound.
Calamy, (Dr.,) life and times, 1830, 2 vols., 8 vo., boards.
Harris' lives, from original writers and state papers, viz: of James I., Charles I., Cromwell, Charles II., and James II., 1814, 5 vols., 8 vo., bound.
Herbert of Cherburg's life of Henry VIII., 1682, 1 vol., folio, bound.
Wood's Athenæ Oxonienses, 1820, 4 vols., 4to., boards.
Elmes, memoirs of the life and works of Sir Christopher Wren, 1823, 1 vol., 4to, boards.
Gleig, military commanders, (Lardner's cyclopedia,) 3 vols., 12 mo., cloth.
Mackintosh, Courtenay and Foster, history of eminent British statesmen, (Lardner's cyclop.,) 7 vols., 12 mo., cloth.
James and Crowe, history of foreign statesmen, (Lardner's cyclop.,) 5 vols., 12 mo., cloth.
Montgomery, Brewster, &c., literary and scientific men of Italy, Spain, &c., (Lardner's cyclopedia,) 3 vols., 12 mo., cloth.
Dunham, lives of early British writers, (Lardner's cyclop.,) 1 vol., 12 mo., cloth.
Dunham, lives of early British dramatists, (Lardner's cyclop.,) 2 vols., 12 mo., cloth.
D'Abrantes, memoirs of Napoleon, 1836, 2 vols., 8 vo., cloth.

Digitized by Google

Madame De Stael Holstein, ten years exile, edited by her son, 1821, 1 vol., 8 vo., bound.
Bayle, a brefe chronycle concernynge the examynacyon and death of the blessed martyr of Chirst, Syr Johan Oldcastell, the Lord Cobham, 1729, 1 vol., 8 vo., royal, bound.
Turenne, memoirs by himself, 1765, 1 vol., 8 vo., bound.
Johnsoniana, or supplement to Boswell, &c., 1836, 1 vol., 4to, boards.
Skattowe's life of Shakspeare, with inquiries, &c., 1824, 2 vols., 8 vo., boards.
The life, death and actions of the most chaste, learned and religious lady Jane Grey, &c., 1615, reprinted verbatim, 1 vol., 12 mo., 1825, boards.
The right joyous and pleasant history of the feats, jests and prowess of the Chevalier Bayard, by the Loyal Servant, 2 2 vols., 12 mo., boards.
Hoare's memoirs of Granville Sharp, 1820, 2 vols., 4to, boards.
Tooke's Catherine II., 1800, 3 vols., 8 vo., boards.
Priestley's memoirs, by himself, 1806, 2 vols., 8 vo., boards.
Watson's life and anecdotes of Bishop Watson, 1818, 2 vols., 8 vo., boards.
The gold headed cane, 1828, 1 vol., 8 vo., bound.
Memoirs of the duke of Cumberland, 1762, 1 vol.
Life of the duke of Ormond, 1748, 1 vol., 12 mo., bound.
Preston, lives of celebrated Spaniards, 1833, 1 vol., 8 vo., bound.
Autobiography, a collection of interesting lives, written by the persons themselves, 1832, 33 vols., 18 mo., cloth.
From Constable's Miscellany—
Bourrienne, memoirs of Napoleon, 4 vols.
Russell, life of Cromwell, 2 vols.
Chambers, life of James I., 2 vols.
Carrick's life of William Wallace, 2 vols.
Bell's life of Mary Queen of Scots, 2 vols.
Sutherland, lives of knights of Malta, 2 vols.
Crichton, lives of converts from infidelity, 2 vols.
Memes' life of Josephine, 1 vol.
Lockhart's life of Burns, 1 vol.
Cosio, life of Herman Cortez, 1 vol.
Memoirs of the Marchioness Jacqueline, 1 vol.
Life of Edward the black prince, 1 vol., bound.
Overly's life of Swift, 1 vol., bound.
Ward's life of Moore, 1 vol.
Hamilton's Queen Anne, 1 vol.
Life of duke D'Espernon, 1 vol., folio, bound.
Macrie's life of Knox, 1 vol., 8 vo., bound.
Life of Lord Herbert of Cherburg, edited by himself; by Walpole; continued by Scott, 1836, 1 vol., 8 vo., cloth.

Digitized by Google

Prose, Literature, &c.—Belleslettres.

Burnett's specimens of English prose writers, (Hazlett's copy,) 1813, 3 vols., 8 vo., bound.,
The British essayists, by Chalmers, 1823, 38 vols., 18 mo., cloth, viz:
The Tattler, 4 vols.
The Spectator, 8 vols.
The Guardian, 3 vols.
The Rambler, (Dr. Johnson,) 3 vols.
The Adventurer, (Johnson and others,) 3 vols.
The World, (Moore, Walpole, &c.,) 3 vols.
The Connoiseur, (Colman, &c.,) 2 vols.
The Idler, (Johnson, Reynolds, &c.,) 1 vol.
The Mirror, (Mackenzie, &c.,) 2 vols.
The Lounger, (Mackenzie, &c.,) 2 vols.
The Observer, (Cumberland, &c.,) 3 vols.
The Looker on, (Roberts,) 3 vols.
Index, 1 vol.
Hallam, introduction to the literature of Europe in the 15th, 16th and 17th centuries, 1838–39, 4 vols., 8 vo., cloth.
Gray's (prose) works, by Mitford, 1836, 4 vols., 12 mo., cloth.
Swift's works, 1751, 11 vols., 12 mo., bound.
Shenstone's works, 1764, 3 vols., 8 vo., bound.
Cowper's life and works, by Grimshawe, 1835, 8 vols., 12 mo., cloth.
Lamb's prose works, 1829, 3 vols., 12 mo., cloth.
Lamb's letters, 1837, 2 vols., 12 mo., cloth.
Sir Joshua Reynolds' literary works, 1835, 2 vols., 18 mo., cloth.
Chesterfield's (Lord,) letters, 1774, 2 vols., 4to, boards.
Chesterfield's miscellanies, 1774, 2 vols., 4to, bound.
Hogg, tales and sketches, 1838, 6 vols., 18 mo., bound.
Hogarth's works, 1812, 2 vols., 8 vo., bound.
Sidney Smith's works, 1839–40, 4 vols., 8 vo., cloth.
Goldsmith's miscellaneous works, 1835, 4 vols., 8 vo., cloth.
Dryden's prose works, by Malone, 1800, 4 vols., 8 vo., bound.
Addison's works, (by Hurd,) 1811, 6 vols., 8 vo., royal, bound.
Walter Scott's prose works, 1836. 28 vols., 12 mo., cloth.
do waverly novels, uniform with above, 48 vols., 12 mo., cloth.
Harlitt, literary remains, by Bulwer and Telford, 1836, 2 vols., 8 vo., cloth.
Harlitt, plain speaker, 1826, 2 vols., 8 vo., cloth.
do spirit of the age, 1825, 1 vol., 8 vo., cloth.
do conversations with Northcote, 1830, 1 vol., 8 vo., cloth.
Harlitt, sketches and essays, 1839, 1 vol., 12 mo., cloth.

Digitized by Google

Harlitt, characteristics, 1837, 1 vol., 12 mo., cloth.
Sismondi, history of the literature of the south of Europe, translated by Roscoe, 1823, 4 vols., 8 vo., boards.
Elegant extracts from the most ancient British prose writers, 1827, 6 vols., 18 mo., boards.
Jostin, philosophical, critical and miscellaneous tracts, 1790, 2 vols., 8 vo., boards.
Original letters sent to the Tattler and Spectator, 1725, 2 vols., 8 vo., bound.
Lady Montague's works, 3 vols., 8 vo., cloth.
Oxford's English prize essays, 1836, 5 vols., 12 mo., boards.
D'Israeli's literary character, &c., 1839, 1 vol., 12 mo., cloth.
do curiosities of literature, 1839, 1 vol., 8 vo., cloth.
Hobhouse, illustrations of Childe Harold, 1818, 2 vols., 8 vo., bound.
Hunt, (Leigh,) indicator, 1 vol.
Roscoe's novelists library, 1831, viz:
Don Quixote, (Smollet,) 3 vols., 12 mo., cloth.
Gil Blas, (Smollet, 2 vols., 12 mo., cloth.
Vicar of Wakefield, 1 vol., 12 mo., cloth.
Tristram Shandy and sentimental journey, 2 vols., 12 mo., cloth.
Roderick Random, 1 vol., 12 mo., cloth.
Peregrine Pickle, 2 vols., 12 mo., cloth.
Joseph Andrews, 2 vols., 12 mo., cloth.
Tom Jones, 2 vols., 12 mo., cloth.
Amelia, 2 vols., 12 mo., cloth.
Fenelon's Telamachus, by Hawkesworth, 1795, 2 vols.,, 4to, bound.
Selden, (John,) titles of honor, 1631, 1 vol., folio, bound.
Treatise on the progress of literature and its effects on society, 1834, 1 vol., 8 vo., boards.
Walton, on learning, 1695, 1 vol., 12 mo., bound.
Brydges, (Sir Egerton,) letters on the character and genius of Byron, 1824, 1 vol., 8 vo., bound.
Brydges' restitua, 1814, 4 vols., 8 vo., bound.
DeStael, (Madame,) Germany, 1813, 3 vols., 8 vo., cloth.
De Stael, ancient and modern literature, 1803, 2 vols., 8 vo., bound.
Beerington, literary history of the middle ages, 1814, 1 vol., 4to., boards.
Rousseau's Eloisa, 1803, 4 vols., 12 mo., bound.
Knight's Marcus Flaminius, 1808, 2 vols., 12 mo., bound.
Vathek, 1786, 1 vol., 8 vo., bound.
Richardson's Sir Charles Grandison, 1810, 7 vols., 12 mo., cloth.
The man in the moon, 1783, 2 vols., 18 mo., bound.
Pegge's anecdotes of the English language, 1814, 1 vol., 8 vo., bound.

Digitized by Google

Jones' traditions of the North American Indians, 1830, 3 vols., 12 mo. cloth.
The Sexagenarian, 1818, 2 vols., 18 mo., cloth.
Pinkerton's literary correspondence, by Dawson Turner, 1830, 2 vols., 8 vo., cloth.
Walpole, (Horace,) private correspondence, 1837, 3 vols., 8 vo., cloth.
Howitt, rural life in England, 1838, 2 vols., 8 vo., cloth.
Memorials of Oxford, Ingram, 1837, 3 vols., 8 vo., cloth.
Dyer's history of the University and Colleges of Cambridge, 1814, 2 vols., 8 vo., cloth.
Landor, imaginary conversations of literary men and statesmen, Ser. 1, (new edition,) 1836, 3 vols., 8 vo., cloth.
do Ser. 2, 1829, 2 vols., 8 vo., cloth.
Gray, sketches of English literature, 1835, 1 vol., 8 vo., cloth.
Nash's Christ's tears over Jerusalem, (from the edition of 1613,) 1815., 1 vol., 4to, cloth.
Pierce, supererogation, or new praise of the old ass, (from the edition of 1593,) 1815, 1 vol., 4to, cloth.
Drake's essays, biographical, critical, &c., 1814, 5 vols., 18 mo., boards.
Brydges, (Egerton,) imaginative biography, 1834, 2 vols., 12 mo., boards.
Foster, original letters of Locke, Sidney and Shaftesbury, 1830, 1 vol., 12 mo., boards.
Montaigne's essays, (from the edition of Peter Coste,) 1811, 3 vols., 8 vo., bound.
Browne's British Cicero, 1808, 3 vols., 8 vo., bound.
Brougham's speeches on public rights and duties, with historical introductions, &c., 1838, 4 vols., 8 vo., cloth.
Walton, (Isaac,) and Cotton, complete angler, (new edition,) 1839, 1 vol., 12 mo., boards.
Lane, thousand and one nights, a new translation from the Arabic, 1 vol., 8 vo., royal, cloth.
Collin's dictionary of Spanish proverbs, 1823, 1 vol., 12 mo., cloth.
Transactions of the royal society of literature, vol. 1, part 1, &c., &c., vol. 2, part 1, 1827–9, 3 vols., 4to, boards.
Gœthe's Faust, by Hayward, (third edition,) 1838, 1 vol., 12 mo., cloth.
Gœthe's Fuast, by Birch, 1839, 1 vol., 8 vo., cloth.
Muller, characteristics of Gœthe, translated by Miss Austin, 1833, 3 vols., 12 mo., cloth.
Skelton's pietas oxoniensis, 1 vol., 4to, royal, cloth.
Losely's manuscripts, 1 vol.
Coleridge, literary remains, edited by Henry Nelson Coleridge, 1836–9, 4 vols., 8 vo., cloth.
Coleridge's table talk, (Constable's miscellany,) 1 vol.

Digitized by Google

Pigott, Scandinavian mythology, 1839, 1 vol., 8 vo., cloth.
Bouterwek, history of Spanish and Portuguese literature, 1823, 2 vols., 8 vo., boards.
Taylor, survey of German poetry, 1838, 3 vols., 8 vo., boards.
Lowth, lectures on Hebrew poetry, 1838, 1 vol., 8 vo., cloth.
Guest, history of English rythms, 1838, 2 vols., 8 vo., cloth.
Collier's political Decameron, or conversations on English poets and poetry, 1820, 2 vols., 8 vo., boards.
Walker's rhyming dictionary, 1836, 1 vol., 12 mo., cloth.
Coleridge, phantasmion, 1 vol.
Beattie's essays on poetry and music as they effect the mind, on a classical learning, 1 vol., 8 vo., bound.
Beattie's dissertations, 1783, 2 vols., 8 vo., bound.
Meme's history of sculpture and painting, (Constable's miscellany.)
Lauri's history of painting in Italy, 1828, 6 vols., 8 vo., cloth.
Magazine of the fine arts, (by Roscoe,) 4 vols., 8 vo., cloth.
Busby's lectures on English poetry, 1838, 1 vol., 8 vo., cloth.
Neele, lectures on English poetry, 1830, 1 vol., 8 vo., cloth.
Campbell, philosophy of rhetoric, 1838, 1 vol., 8 vo., cloth.
Rollin, method of teaching and studying belleslettres, 1810, 3 vols., 8 vo., cloth.
Aristotle, treatise on rhetoric, with notes, and a reprint of Hobbes' analysis of Aristotle's rhetoric, (Oxford,) 1833, 1 vol., 8 vo., boards.
Alison, on taste, 1825, 2 vols., 8 vo., boards.
Borde, introduction of knowledge, 1825, 1 vol., 4to, cloth.
Aristarchus, principles of composition, 1821, 1 vol., 8 vo., boards.
Harlewood, ancient critical essays on English poets and poetry, 1811, 1 vol., 4to, boards.
Burton's anatomy of melancholy, (16th edition from the edition of 1651,) 1838, 1 vol., 8 vo., cloth.
Flaxman, lectures on sculpture, with additions by Westmacott, 1838, 1 vol., 8 vo., cloth.
Walpole, (Horace,) anecdotes of painting in England, &c., (ed. Dallany,) 5 vols., 8 vo., imperial, cloth.

Poetry.

The Aldine edition of the British poets, (Pickering,) viz:
Dryden's poetical works, 1832, 5 vols., 12 mo., cloth.
Thomson's poetical works, 1830, 2 vols., 12 mo., cloth.
Shakspeare's poetical works, 1830, 2 vols., 12 mo., cloth.
Sir Thos. Wyatt's poetical works, 1831, 1 vol., 12 mo., cloth.
Gray's poetical works, 1836, 1 vol., 12 mo., cloth.
Akenside's poetical works, 1835, 1 vol., 12 mo., cloth.
Collins' poetical works, 1830, 1 vol., 12 mo., cloth.
Falconer's poetical works, 1836, 1 vol., 12 mo., cloth.

Digitized by Google

Henry Kirk White's poetical works, 1830, 1 vol., 12 mo., cloth.
Milton's poetical works, 1839, 3 vols., 12 mo., cloth.
Cowper's poetical works, 1831, 3 vols., 12 mo., cloth.
Young's poetical works, 1834, 2 vols., 12 mo., cloth.
Parnell's poetical works, 1833, 1 vol., 12 mo., cloth.
Howard's (earl of Surrey,) poetical works, 1833, 1 vol., 12 mo., cloth.
Swift's poetical works, 1833, 3 vols., 12 mo., cloth.
Butler's poetical works, 1835, 2 vols., 12 mo., cloth.
Prior's poetical works, 1835, 2 vols., 12 mo., cloth.
Goldsmith's poetical works, 1839, 1 vol., 12 mo., cloth.
Beattie's poetical works, 1831, 1 vol., 12 mo., cloth.
Pope's poetical works, 1835, 3 vols., 12 mo., cloth.
Burn's poetical works, 1839, 3 vols., 12 mo., cloth.
Spencer's poetical works, 1839, 5 vols., 12 mo., cloth.
Herbert's poems, 1836, 1 vol., 12 mo., cloth.
Sotheby's poems, (with autograph,) 1825, 1 vol., 8 vo., bound.
Elegant extracts from the most eminent British poets, 1827, 6 vols., 18 mo., cloth.
Butler's Hudibras, notes by Nash, 1835, 2 vols., 8 vo., cloth.
Clifford, Tixall poetry, 1813, 1 vol., 4to, boards.
Oxford, prize poems, 1836, 1 vol., 12 mo., cloth.
Ritson's English authology, 1792, 3 vols., 12 mo., cloth.
Percy, reliques of ancient English poetry, 1839, 3 vols., 12 mo., cloth.
Walter Scott's poetical works, 12 vols., 12 mo., cloth.
Byron's works, (ed. Murray,) 17 vols., 12 mo., cloth.
Milton's poetical works by Brydges, illustrated by Turner, 1838, 6 vols., 12 mo., cloth.
Milton's poetical works, by Touson, 1730, 2 vols., 4to, bound.
Southey's poetical works, 1837, 10 vols., 12 mo., cloth.
Montgomery's poetical works, 1836, 3 vols., 12 mo., cloth.
Cowley's works, 1707, 3 vols., 12 mo., bound.
Lamb's poetical works, 1838, 1 vol., 12 mo., cloth.
Shelley's poetical works, 1839, 4 vols., 12 mo., cloth.
Hogg's poetical works, by Wilson, 1838, 4 vols., 18 mo., cloth.
Dryden's poetical works, by Warton, 1811, 4 vols., 8 vo., boards.
Warton's poetical works, by Mant, 1802, 2 vols., 4to, boards.
Warton's history of English poetry, 1775, 3 vols., 4to, bound.
Drummond's (of Hawthornden,) poems, 1833, 1 vol., 18 mo., cloth.
The songs of England and Scotland, 1835, 2 vols., 18 mo., cloth.
Pringle's poetical works, 1837, 1 vol., 8 vo., cloth.
Hall's (Bishop,) satires, 1839, 1 vol., 8 vo., cloth.
Roger's poems and Italy, 1835, 2 vols., 8 vo., cloth.
Sotheby's Constance of Castile, 1815, 1 vol., 4to, cloth.

Digitized by Google

Gifford, Baviad and Mæriad, 1797, 1 vol., 8 vo., bound.
Talbot, (Hon. Wm.,) translations of Gœthe's Faust, with the German text, (second edition,) 1837, 1 vol., 8 vo., cloth.
Auster's translation of Faust, 1835, 1 vol., 12 mo., boards.
Mickle's Lusiad, 1775, 1 vol., 4to, bound.
Ritson's ancient songs and ballads, 1829, 2 vols., 12 mo., cloth.
Ritson's ancient popular poetry, 1833, 1 vol., 12 mo., cloth.
Carlyle, specimens of Arabian poetry, 1796, 1 vol., 4to, bound.
Bland, collections from the Greek authology, by Merivals, 1835, 1 vol., 12 mo., boards.
Collection of English poems, 1765, 6 vols, 8 vo., bound.
Ariosto, Orlando Furioso, (Hoole,) 1783, 5 vols., 8 vo., bound.
Jephson's Roman portraits, 1795, 1 vol., 4to, bound.
Dyce, specimens of British poetesses, 1827, 1 vol., 12 mo., bound.
Hartshorne, ancient metrical tales, 1829, 1 vol., 12 mo., cloth.
De Foe Jure Divino, 1706, 1 vol., folio, bound.
Southey's British poets, from Chaucer to Johnson, (1,016 pp.,) 1831, 1 vol., 8 vo., bound.
Anderson's edition of the British poets, 1795, 13 vols., 8 vo., royal, cloth.
Millman, poetical works, 1840, 3 vols., 12 mo., cloth.
Millman, Nana and Damayanti, and other poems, translated from the Sancrit into English verse, 1835, 1 vol., 8 vo., royal, boards.
Chaucer, Canterbury tales, &c., 1830, 5 vols., 12 mo., cloth.
England's Parnassus, (a reprint of the edition of 1600,) 1814, 1 vol., 4to, boards.
Whetstone, mirror of true honor, &c., (reprint of ed. of 1585,) 1815, 1 vol., 4to, boards.
A small handful of fragrant flowers, (from the ed. of 1575,) 1811, 1 vol., 4to, boards.
Storer, life and death of Wolsey, (from edition of 1599,) 1811, 1 vol., 4to, boards.
Southwell, triumphs over death, (1596,) 1814, 1 vol., 4to, boards.
Four letters and certain sonnets, touching Robt. Greene, (from the edition of 1592,) 1 vol., 4to, boards.
England's Helicon, a collection of pastoral and lyric poets of the reign of Elizabeth, 1812, 1 vol., 4to, boards.
Nott, works of the earl of Surrey, by Wyatt, 1815, 2 vols., 4to, boards.
Addison's (miscellaneous) works, by Croly, 1830, 4 vols., 18 mo., cloth.
Pitt and Warton, Virgil in English verse, 1753, 4 vols., 12 mo., bound.
Cary's Dante, 1831, 3 vols., 18 mo., cloth.
Brydges, (Egerton,) select poems, 1814, 1 vol., 4to, boards.

Digitized by Google

Camoens Lusiad, 1826, 1 vol., 8 vo., boards.
MacPherson's Ossian, 1765, 2 vols., 8 vo., bound.
Matthias, pursuits of literature, 1798, 1 vol., 8 vo., bound.
Weber, metrical romances of the 15th and 16th centuries.
Lays of the Minnesingers or German troubadours, 1825, 1 vol., 8 vo., cloth.
Bowring's ancient poetry of Spain, 1824, 1 vol., 12 mo., bound.
do Batarin authology, 1824, 1 vol., 18 mo., bound.
do Cheskian authology, 1832, 1 vol., 18 mo., bound.
do Matins and Vespers, 1823, 1 vol., 18 mo., bound.
Bowring's Servian popular poetry, 1827, 1 vol., 18 mo., bound.
Crabbe's works, 8 vols., 12 mo., cloth.
Dryden's Virgil, 4 vols., 8 vo., bound.

Drama and Dramatic Literature.

The pictorial edition of Shakspeare, by Knight, vol. 1, the historical plays only completed, 1 vol., 8 vo., royal, cloth.
Shakspeare, notes by Singer, 1826, 10 vols., 12 mo., cloth.
Theobald, Shakspeare restored, 1726, 1 vol., 4to, bound.
A reversal of Shakspeare's text, 1765, 1 vol., 8 vo., bound.
Brown, (Charles Armitage,) on Shakspeare's autobiographical poems, &c., 1838, 1 vol., 12 mo., boards.
Drake, Shakspeare and his times, 1817, 2 vols., 4to, boards.
Becket, critical notes on Shakspeare, 1815, 2 vols., 8 vo., boards.
Annotations on Shakspeare, by Stevens, Malone, Pope, &c., 1819, 2 vols., 8 vo., boards.
Malone, notes on Shakspeare, 1 vol., 8 vo., boards.
Richardson, dramatic characters of Shakspeare, 1798, 1 vol., 8 vo., boards.
Hasslitt, characters of Shakspeare, 1831, 1 vol., 12 mo., cloth.
Ireland, Shakspeare papers, (the celebrated forgeries,) 1796, 1 vol., 8 vo., bound.
Otway's works, 1813, 3 vols., 12 mo., bound.
Benjamin Johnson's works, 1838, 1 vol., 8 vo., royal, cloth.
Cibber's plays, 1721, 2 vols., 4to, bound.
Kit Marlowe's works, 1816, 3 vols., 12 mo., cloth.
Shirley's works, by Gifford, 1833, 6 vols., 8 vo., cloth.
Foote's, (Samuel,) works, 1830, 3 vols., 18 mo., bound.
John Webster's works, by Dyce, 1830, 4 vols., 12 mo., bound.
Geo. Peele's works, by Dyce, 1829, 3 vols., 12 mo., bound.
Old English plays, a selection, &c., 1818, 3 vols., 8 vo., bound.
Collier's history of English dramatic poetry, (annals of the stage,) 1831, 3 vols., 12 mo., boards.
Rowe's works, 1792, 1 vol., 12 mo., bound.
Shiller's Fiesko, 1832, 1 vol., 18 mo., bound.
King Johan, by John Ball, (from the Camden tracts,) 1838, 1 vol., 4to, boards.

Digitized by Google

Wilson, specimens of the theatre of the Hindus, 1835, 2 vols., 8 vo., boards.

Miscellaneous.

Malcolm, anecdotes of the manners and customs of London, from the Roman invasion to the 19th century, 1811, 5 vols., 8 vo., boards.

Burder's oriental customs, 1836, 1 vol., 8 vo., boards.

Aubrey's letters of eminent persons in the 17th and 18th centuries, 1813, 3 vols., 8 vo., boards.

Oxoniana, 4 vols., 18 mo., bound.

Bielfield's letters from the Prussian court, 1768, 4 vols., 12 mo., bound.

Chesterfield's letters to celebrated persons, from Charles II. to Queen Anne, 1829, 1 vol., 8 vo., bound.

Brady, Clavis Calendaria, 1815, 2 vols, 8 vo., bound.

Sketches of imposture, &c., (family library,) 1837, 1 vol., 18 mo., cloth.

The Koran, from the Arabic, with notes and a dissertation by Sale, 1838, 1 vol., 8 vo., cloth.

Buchanan on the North American Indians, 1 vol., 8 vo., cloth.

Howison, European colonies, 1834, 2 vols., 8 vo., bound.

A collection of discourses of the virtuosi of France upon questions of philosophy and natural knowledge, 1664, 1 vol., folio, bound.

A Chinese romance and a tragedy, translated by Davis, 1829, 2 vols., 8 vo., cloth.

DePauw, researches philosophiques sur les Americaines, avec une dissertation, par Dr. Pernatty, et le defense de l'autem, &c., 1770, 3 vols., 12 mo., bound,

Athenian oracle; being a collection of all the valuable questions and answers in the old Athenian Mercuries, 1728, 4 vols., 8 vo., bound.

Clarkson on the slave trade, 1808, 2 vols., 8 vo., cloth.

Stafford, history of music, (Constable's miscellany,) 1 vol.

Calvera, description of the ruins of the ancient city of Palenque, 1 vol., 4to, boards.

Chalmer's memorials of Oxford, 1810, 2 vols, 8 vo., boards.

Strutt's sports and pastimes, 1838, 1 vol., 8 vo., cloth.

Falconer's marine dictionary, by Burney, 1815, 1 vol., 4to, cloth.

Jackson, historical and practical treatise on wood engraving, 1839, 1 vol., 8 vo., royal, bound.

Bibliophobia, &c., 1 vol., 8 vo., boards.

Puffendorf's Europe, 2 vols., 8 vo., bound.

Translations of the Prophets, (Lowth, Blaney, &c.,) 5 vols., 8 vo., cloth.

Newton on the prophecies, 1 vol., 8 vo., cloth.

Tupper's modern pyramid, 1 vol.

Digitized by Google

Bibliography.

Nicholson's historical libraries, 1738, 1 vol., folio, bound.
Moss, manual of classical bibliography, 1837, 2 vols., 8 vo., cloth.
Catalogue of the library of the London institution, 1835, 1 vol., 8 vo., cloth.
Dibdin, introduction to the Greek and Latin classics, (fourth edition,) 1827, 2 vols., 8 vo., boards.
Shakspeariana; a catalogue of books and papers relating to Shakspeare, 1827, 2 vols., 12 mo., boards.
Greswell, view of the early Parisian Greek press, 1832, 2 vols., 8 vo., boards.
Beloe, anecdotes of literature and scarce books, 1807, 6 vols.; 8 vo., boards.
Ayscough, catalogue of the manuscripts in the British museum, 1782, 2 vols., 4to, bound.
Reuss, alphabetical catalogue of all the authors actually living in Great Britain, Ireland and the United Provinces of North America, (Berlin and Stettin,) 1804, 2 in 1 vol,, 8 vo., bound.
Lowndes, bibliographical manual and English literature, 1834, 4 vols., 8 vo., boards.

[No. 10.]

Special message, with documents, relative to the public domain.

To the Senate and House of Representatives:

GENTLEMEN—It is my duty to lay before you, certain resolves which have been passed by the general assembly of the state of Connecticut, during the last year, concerning the public domain; and which have been transmitted to me, with the request that I should communicate them to you. The sentiments which I entertain on this matter of so transcendent importance to the prosperity of the west, are to be found embodied in a report made in the senate of this state, in 1838, (*Senate document No.* 32, *page* 431;) further illustrated in my communications to both houses, last year, upon the occasion of my transmission to them of the resolutions of Vermont and Kentucky, on the same subject. To these documents, I ask leave, respectfully to refer.

It is impossible to contemplate the condition of our young and embarrassed state, in the relation which she bears to this momentous subject, except with reflections of the most painful character.

Digitized by Google

No independent community ever existed, it is believed, which did not claim the right of control, over such waste and unappropriated wild lands as were within its limits. The older states of this Union certainly claimed, upon that principle, all proprietary interest, in such lands, within their limits respectively; they *still* claim it, and their claim is sanctioned. We were promised that we should be admitted into the Union, on the basis of *equal* right, "on the same footing, in all respects whatsoever, with the original states."

It is not necessary to inquire how far such a promise may have proved fallacious. But if the wild and unappropriated lands within our limits, which the general government *did not think proper to sell*, before we emerged from a condition of colonial dependence upon that government, were deemed too valuable a boon, like other of its rights, to be parted with by it; yet it may be asked with still more emphatic meaning, whether we remained shorn also, of the sovereign right of taxation? What state, or nation on earth, having sovereign powers, ever failed to exercise that right, in its discretion, over every species of property, which was within its limits? None can doubt but that such a power is inherent in every state of this Union, in the most ample and plenary degree, excepting only as regards so much of it as is expressly granted by the people or by the states, *exclusively* to the general government, and for the purpose of ascertaing what grants of power have been made to that general government, it will be conceded, I think, that we must resort *alone* to the constitution of the United States. It cannot be admitted, I think, that that general government is competent to enlarge and amplify its own powers, or to diminish the inherent and constitutional powers of the states, by holding out allurements to some, or *driving bargains* with others. When the two houses of congress had passed a bill for erecting turnpike gates and *collecting tolls*, on the Cumberland road, with the express assent of the states, within whose limits respectively, such toll was proposed to be collected, (and it was to be such *only* as should be sufficient to keep the road in repair,) president Monroe, vetoed the bill. "I am of opinion," he says, "that congress do not possess this power, that the states individually, cannot grant it, for although they may assent to the appropriation of money within their limits, for such purposes, they can grant no power of jurisdiction or sovereignty by special compacts with the United States. This power can be granted, only by an amendment to the constitution, and in the mode prescribed by it." Who, among the wise statesmen of the United States, have ever controverted, or doubted the force of that reasoning? I apprehend that it is to the constitution of the United States alone, that we are to look, for the powers granted to the general government, or for

Digitized by Google

any restriction of the inherent and sovereign powers of the individual states. It is the paramount law; it absorbs and abrogates all *compacts previously* made, which conflict with its provisions, and it avoids and renders null, all subsequent ones, which purport, either to increase its own, or lessen the powers of the states. And, where, in that hallowed instrument, is to be found the clause, which takes from a state, its right of eminent domain? its power, *inseparable from its sovereignty*, of taxing the lands that are within its limits, for the beneficent purposes of government?

Our intelligent and enterprising population of 211,001, though found in groups around many a beautiful spot of our peninsula, is yet widely scattered—dotting, with its villages and settlements, here and there, the general surface. But those villages and settlements are widely separated from each other, and from their common market, by eighteen or nineteen millions of acres, of the public domain—a domain which lies useless, for all the beneficial purposes of society. For this population, so situated, good roads, canals, and all the modes of transportation and inter-communication, which are so universally in operation in other parts of the Union, are considered *indispensable*. To attain them, our industrious and high-spirited people, have already taxed themselves to the utmost limit of their ability. The annual *highway* tax alone, assessed in a county containing 194,480 acres subject to taxation, for the year 1839, as appears by the auditor general's report to you, averaged five dollars and sixty cents for every eighty acre lot! This is far above their ability to pay—and yet the object is not attained. Our peninsula exhibits no leading, well constructed and creditable highways; and only inconsiderable, and comparatively unproductive sections of our canals and railroads, are completed. To our brothers of the older, of the eastern and southern states, the reason for such result may not be apparent; to us, it is too painfully clear. Of the twenty-three or twenty-four millions of acres, of which the peninsula probably consists, some eighteen or nineteen millions of acres, continue uncultivated, unappropriated, public domain; and this, it is claimed, the state has no right to tax. The act of congress which relinquished to Ohio 500,000 acres of land, for purposes of internal improvement generally, gave also to that state, every alternate section in a strip of ten miles wide, along the projected canal from Dayton to Lake Erie, for the purpose of constructing that canal. But the same act also contained a clause raising the minimum price of the residue, from one dollar and twenty-five cents, to two dollars and fifty cents per acre; thus establishing the proposition by its own concession, that the construction of the canal *doubled the value* of the land upon its borders. And it is unquestionable true that every

Digitized by Google

day's work upon the public roads, as well as every tree of the forest that is felled by the industrious farmer, in reclaiming his farm, and in the embellishment of the country, imparts an increased value to the public domain, over which such road penetrates, or near which such improvement may be, which it *never* otherwise, could attain. Why, then, should not that public domain, even if the state could urge *no* other claim to control or to tax it, on the exclusive ground of mere equity, be made to contribute, in proper proportion, for the making of such roads, and other internal improvements?

The policy pursued by the general government in this regard, towards Ohio, and all the states of the old north-western territory, with the only exception of Michigan, was dictated by clear justice and equity, even if *no* question could have been made as to the power of those states, as matter of *mere* right, by the sovereign right of taxation or otherwise to compel that just and proportionate contribution. But it is especially painful and humiliating to reflect, that while some million and one half of acres of choice land, have thus accrued to Ohio, (exclusive of the school sections, which have alike over all parts of the public domain, been applied to purposes of education, which, since the ordinance of the old congress of 1785, have been holden out as a powerful allurement to purchasers, and which indeed have always constituted *essentially, a part of the consideration* of every individual contract of sale;) and a proportionate quantity no doubt, awarding to every other of the new states which have been carved out of the old north-west territory—not an acre has been assigned to Michigan for purposes of internal improvement; and, exclusive of section sixteen, less than 96,000 acres have been assigned to us for all public purposes whatever! If this invidious distinction could be attributed to deliberate design, to a settled rule of policy, the consideration of it would be full of pain and deep humiliation. But it cannot be so; among all the nations of the earth there can be none, whose councils, generally, are more pre-eminently distinguished for their love of justice, and a high toned and liberal magnanimity, than those of the congress of the United States. I cannot, therefore, refrain from expressing my persuasion, that justice will yet be done to us, that no such invidious distinction as I have alluded to, will long continue to mark the statute book of the nation. And that when our claims upon its justice are fully set forth and again urged upon its consideration, the congress of the United States will first set this new, interesting, but feeble state, upon the footing of equality, at least with other, its western states, and will finally accord to us all that is proper and that will be necessary to consummate those internal improvements, which, without materially diminishing the treasures of the nation, will

Digitized by Google

render Michigan what she ought to be, rich, prosperous and happy.

I commit the whole subject to your deliberate consideration, gentlemen, and pray that this communication may be considered as for the use of both houses.

WILLIAM WOODBRIDGE.

Executive Office, January 27, 1841.

Resolutions.

At a general assembly of the state of Connecticut, holden at New Haven, in said state, on the first Wednesday of May, in the year of our Lord one thousand eight hundred and forty:

Resolved by this Assembly, That the public lands belonging to the United States, are the common property of all the states, and not of the particular states in which they lie; and that neither said lands or the proceeds thereof, ought to be appropriated for any purpose except for the benefit of all the states.

Resolved, That the proceeds of the public lands, not required for the payment of the debts of the government, or for other public purposes connected with the administration thereof, should of right be divided among the several states of this Union.

Resolved, That this assembly earnestly protest against any reduction in the prices of the public lands as now fixed by law, regarding such a measure as unnecessary and unjust.

Resolved, That this assembly do request their senators and representatives in congress, to use their exertions to sustain the principles contained in these resolutions.

Resolved, That his excellency the governor, be requested to forward copies of the foregoing resolutions to the senators and representatives in congress from this state, and also to the executives of the several states, that they may be communicated to the legislatures of their states respectively.

State of Connecticut, Secretary's Office, ss:

I hereby certify that the above is a true copy of record in this office. In testimony of which, I have hereto set the seal of this state, and signed the same.

ROYAL R. HINMAN,
Secretary of State.

Digitized by Google

[No. 11.]

Annual report of the state geologist.

OFFICE OF STATE GEOLOGIST,
Detroit, February 1, 1841.

To the Senate and House of Representatives:

In conformity with instructions contained in the act authorizing a geological survey of the state, I have the honor to lay before you, an outline of the operations of the department over which I have been placed, together with the general progress towards completion of the whole work.

It is a matter of regret to me, that the sufferings and hardships to which I have been exposed in conducting the field work over the wilderness portions of our state, have so far impaired my health, as to render it impossible for me to enter into so minute details as had been anticipated. I regret this the more, since it leaves many wide spaces in portions of the present report, which are of much consequence to a proper understanding of the whole. But since the annual reports are intended to refer rather to the progress of the work than to its results, and since the whole will be embraced in a more perfect form hereafter, this defect is of less importance than it otherwise would be.

My individual labors, during the past season, have been chiefly devoted to surveys connected with the northern slope of the upper peninsula, and to this district, the chief observations in this report, will be directed.

UPPER OR NORTHERN PENINSULA.

General description and Topographical features.

The published maps of that portion of the state of Michigan usually known as the upper peninsula, are so defective, not only in details, but also in general outline, that the task of giving a description of any portion, in such a manner as to render it intelligible to any person who has not actually traveled over it, is exceedingly difficult. The extent of these geographical inaccuracies is much greater than would at first be supposed, for scarcely a single feature of the interior is given as it actually exists; mere brooks are magnified to rivers, and again those streams justly deserving the name of rivers, are either wholly omitted or scarcely noted; while the courses of the streams, as laid down, are almost invariably as far from the truth as could be conceived. Nor do the inaccuracies stop here, for even the coast maps of the great lakes, by which our upper peninsula is in part surrounded, are usually so defective

Digitized by Google

as scarcely to be recognized, except in their most general outlines.*

I have already, in a previous report, referred in general terms, to that portion of the upper peninsula bounded by lakes Huron and Michigan, for which reason my remarks at this time will be mostly confined to the northerly portion of the peninsula, or that portion bordering upon Lake Superior.

So little is known of the extent of country constituting the upper peninsula, that it may not be misplaced to make some reference to its dimensions, though at this time most of the estimates must be regarded as mere approximations. The most extreme length of the district is embraced between Point de Tour, of Lake Huron, on the east, and the mouth of Montreal river, of Lake Superior, on the west. From Point de Tour, the direction of the mouth of Montreal river is very nearly north, 80° 30′ west, and the direct distance does not vary far from 316 miles. This estimate, it will be perceived, does not include Drummond's Island, which, if included, would add some 20 miles to the length as already given.

The easterly portion of the peninsula is narrow, and its width, for a distance of 130 miles west from Point de Tour, varies from 30 to 50 miles; west from this, the peninsula widens rapidly, though its width is exceedingly irregular. I am unable, at this time, to state with very much accuracy, the extreme width of the upper peninsula, but the area of the whole may be estimated at very nearly two-thirds that of the lower, or southern peninsula.

The topography and general features of the upper and lower peninsulas differ so widely from each other, that, with the simple exception of a part of the easterly extremity of the upper peninsula, they scarcely admit of a comparison. The wide contrast exhibited by the two districts, is wholly dependent upon geological differences, and these are so strongly marked, that they could not fail to attract the notice of the most superficial observer.

In the last report I had the honor to lay before you, some general references were made to the topography of the southern slope of the upper peninsula, which embraced simply those portions bordering upon lakes Huron and Michigan, and extending from Point de Tour to Menominee river.

Although the rocks of the district extending from Point de Tour to Chocolate river, upon the northerly or Lake Superior slope, belong to an older series than those lying south, and are different in composition, the general features of the two dis-

* I am happy in being able to except from this otherwise universal charge of inaccuracy, the coast map of Lake Superior published by the society for the diffusion of useful knowledge. This map was reduced from the surveys of Capt. Bayfield, R. N., as returned to the British admiralty office, and so far as the British coast is concerned, the map is minutely correct. The American coast upon this map is faithfully delineated in its general outline, but in minutiæ it is frequently deficient.

Digitized by Google

tricts, nevertheless, bear a close resemblance. Easterly from Point Iroquois, the country is for the most part flat, or but slightly elevated, and the near approach of the rock to the surface so far prevents the descent of the waters, as to give rise to extensive districts of wet and swaly land. Westerly from Point Iroquois to Chocolate river, the country is more elevated, and has a much smaller proportion of wet land. A range of hills, having an elevation varying from 300 to 600 feet above Lake Superior, commences a little easterly from Point Iroquois, and stretches very nearly west, or but a few degrees north of west, until the western escapement again appears upon the coast, giving rise to the elevated hills of which the Pictured rocks and Grand island form a part. The outline of this range of hills has the most perfect regularity, being unbroken and uniformly covered with a dense growth of timber.

West from Chocolate river, to our boundary line at Montreal river, the physical character of the country is widely different from that of the district before referred to. This country is made up of a series of irregular, knobby ranges of hills, that have a general easterly and westerly direction, with intervening valleys of flat or gently rolling land. These hills not unfrequently rise to a height of from 600 to 900 feet, very near to the immediate coast of Lake Superior, and at a distance of 15 to 20 miles south from the coast, portions of some of the ranges rise to a height of 1,200 to 1,300 feet above the level of that lake. The ragged and broken outline which this district presents, when viewed in detail, from the lake, contrasts in a striking manner, with that of the country lying east from Chocolate river; for, instead of the regular and unbroken range of hills, uniformly covered with a dense forest, that occur in the latter district, we have a series of ranges of broken hills, with knobs not unfrequently nearly or quite destitute of timber. The escapements of these hills are sometimes so abrupt as to render them difficult of ascent.

The only exception to the general easterly and westerly direction of these ranges of hills, occurs in that range constituting the Porcupine mountains. These mountains rise somewhat abruptly almost upon the immediate coast of Lake Superior, at a point 37 miles north-easterly from the mouth of Montreal river, and from this point they stretch inland, in a direction which, for the first 30 miles, is very nearly south-south-west, after which their course is more westerly, and in the direction of the sources of the Wisconsin river. The most elevated points of the Porcupine mountains, near to Lake Superior, attain an altitude of very nearly 950 feet, but several of the knobs, at a distance inland, rise from 1,000 to 1,300 feet above the level of the waters of that lake.

The valleys, before referred to as separating these ranges

Digitized by Google

of hills, are uniformly heavily timbered, and by far the largest proportion of this timber is beech and maple.

The length of the hilly or mountainous district, estimating in a direct line west from Chocolate river to the boundary line on Montreal river, is very nearly one hundred and sixty miles, and it does not probably extend, at any point, more than 20 to 25 miles south from this line. Estimating this hilly district to extend regularly 20 miles south of a line drawn from the points before mentioned, the greatest width of the district would be opposite Keweenaw point, which extends 67 miles north from this line, making the total width at this point 87 geographical miles. The very great irregularities of the coast, with the numerous deep bays and projecting points upon the north, together with the irregularities of the ranges of hills upon the south, cause so great variations in the width of the district, that it is impossible, with the present information upon this subject, to estimate the width of the district with any great degree of accuracy. Keweenaw bay, of Lake Superior stretches 60 miles, estimating from the extremity of Keweenaw point, into this hilly or mountainous country.

South from the range of hilly country alluded to, and extending to Green bay, the country at first becomes more level and finally flat, though with several regular and unbroken ranges of hills. In topography and general character, it more nearly resembles that district of country which lies east from Chocolate river.

Of the district of country lying between the hilly country and Green bay, less is known than of any other portion of the upper peninsula. The extent of my duties did not permit me to extend my examinations very far into it, nor was I enabled to obtain any information as to its general character.

The streams which discharge their waters into Lake Superior upon its south shore, are invariably short, and with very few exceptions, the quantity of water they discharge is small. This remark, in fact, may apply to the whole of the region of country surrounding that lake, for this immense body of water is completely surrounded by hills that, at no great distance from the lake, fall away more or less rapidly. Thus, while many of the streams discharging their waters into Lake Michigan, Green bay and the Mississippi river, have their sources near to the south shore of Lake Superior, so also, many of those streams which discharge their waters northerly into Hudson's bay, have their sources near to the north coast of the lake. The near approach of the summit of the ranges of hills surrounding the lake, to the immediate coast, leaves the

Digitized by Google

area of country draining into Lake Superior, comparatively small.

The most important of the streams entering Lake Superior upon its south shore and within the limits of our state, (commencing near the foot of the lake and enumerating westwardly,) are the Tequoimenon, Train, Chocolate, Death, Yellow dog, Huron, Portage, Fire Steel, Ontonagon, Iron, Presque Isle, Black and Montreal rivers. Besides these, there are innumerable creeks, which are usually known to voyageurs as rivers, for this term is applied indiscriminately to all. The waters of most of these streams are remarkably transparent and pure, with brisk currents and numerous cascades, and they almost invariably contain an abundance of the brook trout, a circumstance which I mention, from the fact that this fish is scarcely known in the streams of the southern peninsula.

The Tequoimenon river, which is the only stream east from Chocolate river, that in reality breaks through the range of sandstone hills, before mentioned as extending westerly from Point Iroquois, has its embouchure about 18 miles south from Whitefish point, and near the foot of the lake. The discharge is through loose sands, and there is an average of 4 to 4½ feet water over the bar. Having passed the bar the water for a distance of 7 to 8 miles varies from 10 to 15 feet.

Some of the sources of this stream approach very nearly to Lake Michigan, being directly at the base of the range of lime rock hills, referred to in my third annual report.

The Tequoimenon river, with the exception of a distance of some four to five miles, while passing through the range of sandstone hills before alluded to, is, through its whole course, a sluggish stream, though at many points having a strong, deep current. The character of the river, in its passage through the range of hills referred to, is totally changed, for it has there numerous chutes and falls, with almost continuous rapids. At one point, the whole body of water contained in the stream is precipitated by a single leap, from a height of forty-six feet, and the effect of this fall is much heightened by the elevated and overhanging rocks that bound the river upon either side.

Most of the small streams, discharging into Lake Superior between the foot of the lake and Chocolate river, have their sources to the north of the elevated range of hills mentioned, or minor branches only descend from those hills.

Chocolate river, which discharges its waters into Lake Superior at a point 146 miles very nearly due west from the Sault de Ste Marie, is a stream of considerable magnitude, though in consequence of the loose sands at its mouth, it is difficult of entrance at ordinary stages of water, even with barges of mo-

Digitized by Google

derate draught, but when once the bar is passed, the stream is found to be deep, and for several miles has a width varying from 80 to 150 feet.

This stream will be made a point of reference in the strictly geological portions of this report, for it winds along near the line of junction of two widely distinct geological districts; the general features of one being characterized by its ragged and broken hills, while the other is not less marked by its generally level or regularly undulating surface.

Chocolate river takes its name from the dark color of its waters.

Those streams which occur between Chocolate river and Keweenaw bay, are, with the exception of Huron river, small; though were we to refer to the published maps of this district, we would suppose that some of these streams were of very considerable length. But with the exception of Huron river and River Des Morts, I believe they all have their sources in small lakes lying along the bases of the elevated hills already described. These hills rarely recede farther than three to five miles from the coast, and the length of the streams, forming the outlets of the lakes referred to, is governed wholly by these features.

Ontonagon river, which is one of the most important of the rivers discharging its waters into Lake Superior, upon its south shore, has its embouchure very nearly fifty-five miles east, or rather north-easterly, from the western boundary of the state, at the mouth of Montreal river. Ontonagon river has its sources in a very great number of mountain lakes, situated in part upon the south-easterly spurs of the Porcupine mountains, and in part in the hilly district formed by the easterly and westerly ranges of hills before described; which ranges, upon this portion of the coast, curve very considerably to the south. Some of the sources of the Ontonagon river approach very near to the sources of the Chippewa river of the Mississippi. The great number of small tributaries of the Ontonagon, which are simply the outlets of the small lakes referred to, are concentrated into two principally branches that finally unite and form the principal river, at a distance of about eighteen miles from the coast of Lake Superior. The smaller tributaries are mostly mere torrents, with frequent perpendicular falls, and high banks, sometimes, of precipitous rock. The main stream, from the junction of the two principal branches to within five or six miles of the lake, is rapid and shoal, but below this, the stream is comparatively still, and with a good depth of water. The mouth of the Ontonagon river is obstructed by a bar of sand,

Digitized by Google

over which there is usually, at low stages, about six feet of water.

The principal rivers west from Ontonagon river and within the limits of our state, have already been stated to be Iron, Presque Isle, Black and Montreal rivers. These streams are all short, and the amount of water discharged by each separately, is comparatively small. Their waters descend from the elevated mountain region immediately south from the coast, and since the whole streams are concentrated before passing from these elevations, their waters are discharged in body and they descend with very great rapidity. A greater variety of grand and beautiful scenery than that presented by some of these streams in their descent to the lake, taken in connection with the rugged and wild character of the country, can scarcely be conceived. I was particularly struck with the great variety of picturesque views furnished by Black river, in its descent from the elevated country on the west side of the Porcupine mountains to Lake Superior. The stream was estimated to fall about five hundred feet in a fraction over four miles, and this descent is made up by a constant succession of falls, chutes and rapids, which continue with so little interruption that the waters for the whole distance may be said to be constantly white foam. The stream is bounded upon either side by banks elevated from one hundred to three hundred feet, sometimes sloping away from the stream, somewhat gently, and again rising in mural precipices of rock, separated from each other by so short distances as to appear scarcely sufficient to permit the passage of the waters of the river. The most considerable fall does not exceed fifty feet, and they are usually from ten to thirty feet in height, but their constant succession and variety, add much to its interest.

Montreal river is a comparatively small stream, made up of numerous small tributaries, that rise among the ranges of hills to the south-west and south-east of its mouth. The passage of the river through the range of hills near the lake, gives rise to several very considerable water-falls, as also to much rugged and wild scenery. Almost directly at the place of embouchure into Lake Superior, there is a perpendicular fall of about forty feet. This stream, it will be recollected, forms a portion of the boundary between Michigan and Wisconsin.

By the act admitting Michigan as a state into the confederacy, and in which her boundaries are defined, it does not appear to have been the intention to include within her limits any portion of territory lying upon the north shore of Lake Superior, but in consequence of the peculiar shape of the coast at that point where the *national* boundary line "last touches Lake

Digitized by Google

Superior," at the mouth of Pigeon river, a direct line to the mouth of the Montreal river, if followed literally, would throw within the state of Michigan several small rocky islands, together with a few miles of the south cape of Pigeon bay, situate upon the north coast. This boundary leaves in Wisconsin the whole of the Apostles' group of islands, near to the south coast, while it includes within Michigan, Isle Royale, situate near to the north coast of the lake.

Isle Royale is little less than an island of rock, rising abruptly from the lowest depth of the lake, in irregular hills, to a height varying from 100 to 450 feet above the level of the lake. The island has a length of a fraction over 45 miles from north-east to south-west, and a breadth varying from 3½ to 8 miles. The most northerly point of the island is very nearly in latitude 48° 12′ 30″ north, and the parallel of longitude 89° west from Greenwich, crosses the island a little east from its centre. Its nearest approach to the main land is near its north-westerly end, where it is separated from a point of the north coast, a few miles east from Pigeon river, by a distance of a fraction less than 13 miles. Isle Royale is separated from Keweenaw point, of the south coast, by a distance of 44 miles, and the elevated hills of this point may be distinctly seen from Isle Royale, when the atmosphere is clear.

Nearly the whole of the north-westerly side of Isle Royale is a continuous, elevated, rocky cliff, which will scarcely admit of a landing, but the south-easterly side, together with the easterly and westerly ends, are deeply indented with bays, which form secure harbors. The north-easterly end is made up of a series of elevated, rocky spits, with intervening bays. These spits of rock continue for a length varying from 10 to 12 miles, with a width scarcely exceeding half a mile, and altogether, they may not inaptly be compared to the hand with the fingers half spread. The bays have a sufficient depth of water to admit vessels of the largest class to enter nearly one third the whole length of the island.

Much of Isle Royale is absolutely destitute of soil, and the island has a most desolate appearance; but notwithstanding this, it is of immense value for its fisheries, which are as yet scarcely appreciated.

Though not within the limits of our state, I will briefly refer to the general character of a portion of the country west from Pigeon river, on the north coast. That district of country upon the immediate coast, extending from our national boundary, at Pigeon river, to Fond du Lac, is more decidedly and abruptly mountainous than any portion of the south coast of the lake. The hills rise in broad and somewhat knobby steppes or plateaus, to heights varying from 400 to 1,200 feet above the lake,

Digitized by Google

and the summits of these hills are usually not farther inland than from 10 to 20 miles. The rocks of the hills are very frequently bare over considerable areas, and the valleys containing arable soil, are few and very narrow.

The route of the fur trade to the north-west, via Rainy lakes, Lake of the Woods and Lake Winnepic, was formerly wholly carried on by passing over these hills, from a point a few miles west from the mouth of Pigeon river. The trail or portage path passes over a low portion of the range, and finally falls upon Pigeon river, which is ascended to its source, from which, by a series of portages, the sources of the streams flowing north-westerly are reached. The hilly portion of the country, though of exceeding interest in a geological point of view, is the most desolate that could be conceived.

GENERAL GEOLOGY OF THE UPPER PENINSULA.

The geology of the upper or northern peninsula of Michigan, when compared with that of the southern or lower peninsula, bears a striking contrast; for while that of the district last referred to is uniformly regular, with rocks which, though rarely exposed to view, are few and for the most part but little disturbed, over large areas of country, the upper peninsula embraces a much greater number of rocks, distributed over a somewhat smaller district of country, and a portion of which are so much disturbed, as to render their delineation exceedingly complex and difficult.

The widely different topographical features of the easterly and westerly portions of the northerly part of the upper peninsula would lead the most casual observer to infer that the geological features of the different districts would be equally distinct, and in this he would not be disappointed.

I have already referred to the rugged and broken character of the country, extending westerly from Chocolate river to our boundary at Montreal river, and have also attempted to define its general length and breadth. This district, which is essentially made up of primary, trap and metamorphic rocks, with intervening sedimentary rocks, usually occupying the valleys and out boundaries, may be estimated to cover an area equal to a little more than one-fourth of the whole of the upper peninsula. To the east and south of this district the rocks are wholly sedimentary, consisting of a series of sandstones, limestones and shales.

With a view of rendering the local details of the separate formations more intelligible, I will first describe, in general terms, the rocks occurring in so much of the peninsula as has been examined, together with their general extent. This will necessarily involve a repetition of a very small portion of the

Digitized by Google

report last made, upon the subject of the limestones of the south and east portions of the peninsula, but since the examinations of the past year have enabled me to add another member to the limestone group, and to define with more certainty its outline, this may not be devoid of interest.

1. *Primary Rocks.*—The rocks constituting what may be considered as the true primary group of this region, are chiefly granite, syenite and syenitic granites. The members of the group are first seen upon the south coast of Lake Superior, constituting a rocky point known as Little Presque Isle, a little south-east from Riviere Des Morts. These rocks frequently appear upon the coast north-westerly, nearly as far as Huron river, and the Huron islands off the mouth of Huron river belong to the same group. West from Huron Islands, no rock appears upon the coast which, in a strict sense, I should regard as primary. The rocks of this group arise upon or near to the coast, in irregular and broken ranges of hills, to a height varying from 300 to 700 feet above the waters of the lake, and these hills or ranges of hills are continued in a south-westerly direction. The precise limit of the primary rocks to the westward, has not yet been determined, but they are known to extend nearly or quite to the sources of the Wisconsin river.

A portion of the south-westerly prolongation of the Porcupine mountain range, is made up of rocks belonging to the primary group, but its precise limit here has not yet been determined.

2. *Trap Rocks.*—Flanking the primary rocks already described on the north and north-west, are a series of ranges of hills, stretching in a direction generally south-westerly and north-easterly, which attain an altitude of from three to nine hundred feet above the lake. They are more regular, or rather less broken in outline than the primary hills; a change, however, which in the transition is noticed to take place gradually, from one group to the other, or in other words, the knobbed character of the ranges becomes less and less apparent as we cross them in a north-westerly direction, or from the primary range. These hills are composed of rocks differing at first but slightly from those of the primary group, but gradually the difference becomes more and more apparent, as we proceed northerly. The rocks of those hills nearest the primary range may possibly be regarded simply as rocks of that group, more or less altered, though the rocks of the outer ranges are plainly trap. The range of these rocks which may be said to commence at the very extremity of Keweenaw point, extends, after a slight curve to the north, in a general south-westerly direction, gradually receding from the coast, until at the cross-

Digitized by Google

ing of the Ontonagon river, it is nearly 25 miles inland. Westerly from Ontonagon river, the range becomes confounded with the northerly portions of the Porcupine mountains; while west from these mountains, a portion of what may be considered the same range of rock, has taken a more westerly course and approaches the coast, until, at the crossing of the Montreal river, it is but a few miles distant from Lake Superior. West from the Porcupine mountains, a second range of trap is continued, at a distance of from fifteen to twenty miles inland. The trap range of Keweenaw point may be estimated to compose one third the entire width of the point, and the south-easterly portions of the range are made up of compact greenstone, while those portions to the north-west are amygdaloid.

The ranges of hills constituting the north-westerly part of Isle Royale, and extending its whole length, are of similar rocks, and single knobs of well defined trap rocks occasionally occur, in the very midst of the primary region before referred to, upon the south coast; the proofs of the character of which will be shown as we advance.

3. *Metamorphic Rocks.*—Flanking the primary rocks on the south, is a series of stratified rocks, consisting of talcose, mica and clay slates, slaty hornblende rock, and quartz rock; the latter rock constituting by far the largest proportion of the whole group. In traversing the country south-easterly from little Presque Isle, the point referred to as the most south-easterly prolongation of the granite, this last rock passes almost insensibly into a serpentine rock, which has a regular jointed structure, sometimes approaching to stratification; continuing in the same direction, we find a series of horneblende slates, talcose, mica and clay slates, resting against the serpentine rocks, and still farther to the south-east the rock becomes almost uniformly quartz. The rocks of this group dip irregularly to the south and south-east, while the cleavage of the slates is very uniformly to the north.

The rocks of the metamorphic group stretch into the interior, in a westerly or rather south-westerly direction, forming the south-easterly part of the hilly region.

Rocks referable to this group also occur upon the north coast of Lake Superior.

4. *Conglomerate.*—The rock to which I shall restrict this term, does not occur, well characterized, at any point east from the district referred to, as the commencement of the trap group, nor has it been noticed resting upon any of either the primary metamorphic rocks, but is invariably seen resting upon the trap rocks. Commencing upon the north side of the trap, at the extremity of Keweenaw point, the conglomerate

Digitized by Google

flanks the trap upon its northerly side, as far west as the boundary of our state; nor does it stop here, for the same rock is seen at intervals, as far west as the head of Lake Superior. A similar rock also rests upon the trap of Isle Royale, facing the south-east.

In the course of the range of conglomerate upon the south shore, it forms a nearly continuous range of hills, with somewhat steep escapements, but with a generally rounded outline. These hills sometimes rise to a height of from three to five hundred feet above the level of the lake.

The conglomerate attains a very great thickness, being greatest at its westerly prolongation, and it gradually thins out as we proceed north-easterly; but the irregularity in thickness is so very considerable that variations of several hundred feet are not uncommon within the space of a few miles.

The conglomerate rock of the south coast, dips in mass irregularly to the north and north-west, while that of Isle Royale dips to the south-east.

5. *Mixed Conglomerate and Sandstone.*—The rock or rocks to which I have fixed the above name consists of an alternating series of coarse conglomerates and red sandstones, resting conformably upon the conglomerate rock before described. In strictness, these rocks should probably be considered as a member of the conglomerate itself, but for the sake of convenience in description, I have deemed it desirable to separate them.

This mixed rock was only noticed, as before stated, resting upon the conglomerate, and this only between Point Keweenaw and Montreal river. Its thickness immediately west from and upon the flanks of the Porcupine mountains, is very considerable, but it wedges out rapidly both easterly and westerly, and on the east near the extremity of Keweenaw point, it wholly disappears.

The mixed rock dips regularly to the north and north-west.

6. *Lower, or Red Sandstone and Shales.*—The red sandstone, with its accompanying red and gray shales, occupies a much larger extent of the country bordering upon Lake Superior than any other single rock or group of rocks. It rests upon the primary and metamorphic rocks, immediately west from Chocolate river; upon the conglomerate and mixed rocks from near Eagle river, of Keweenaw point, west to the head of Lake Superior; upon the primary trap, metamorphic and conglomerate rocks of the north shore of the lake, and upon the conglomerate rock of Isle Royale. It is this rock which forms the basis of the level plateaus or valleys, occupying the spaces between the several ranges of hills south from Lake Superior,

Digitized by Google

and west from Chocolate river. In these last situations this rock is frequently seen undisturbed to surround the bases of isolated knobs of granite, though when near to or in contact with knobs or trap, there are invariable evidences of very great disturbance.

The rocks of this group attain their greatest thickness at their westerly prolongation, gradually thinning out as we proceed easterly.

With the exception of that portion of the coast extending from Point Iroquois, at the foot of the lake, to Grand Island, the predominating rock upon the immediate coast, both on the south and north shore, is this red sandstone; for even the primary trap and conglomerate rocks are almost invariably skirted with a band of it. It is also over this rock that the waters of Lake Superior are discharged at the Saut de Ste Marie.

The sandrock forms the chief portion of the group, the shales occurring rather as beds than otherwise, as will be hereafter described.

The red sandstone both upon the north and south shores of Lake Superior, invariably dips into the basin of that lake, which may therefore be regarded as a synclinal axis.

7. *Upper or Gray Sandstone.*—Upon the south shore of Lake Superior, and extending from Point Iroquois to Grand Island, a sandstone occurs differing widely in its appearance from that before described. This sandstone rests *unconformably* upon the red sandstone, the former dipping gently to the south or south-east, while the latter dips very considerably to the north or north-west.

The elevated range of hills before described, as commencing a little easterly from Point Iroquois and extending to the Pictured rocks, are composed of this rock. From the Pictured rocks, the range of hills curves more to the south, stretching very far to the south-west, but its precise limit is not yet determined.

In its easterly prolongation the grey sandstone thins out rapidly. It is last seen at the Neebesh rapids of the Riviere Ste Marie, on the east, at which point, in consequence of not having been sufficiently examined farther westerly, it was confounded with the red sandrock in the last report which I had the honor to lay before you.

8. *Sandy Lime Rock.**—Resting immediately upon this upper or grey sandstone is a sandy limerock, which, although nearly wanting at the very easterly extremity of the peninsula, as we proceed westerly, occupies a more important place.

* The names which have been affixed to the several sand and lime rocks are regarded as merely temporary, and are introduced, for the present, barely to facilitate description.

Digitized by Google

This rock, which, as its name implies, is intermediate between a sandstone and limerock, may be seen on Sailor's encampment island of the Riviere Ste Marie, as also at several points in the vicinity of Monusco bay, from whence it stretches westerly, occupying nearly the central portion of the peninsula, for a distance of at least sixty miles; from which its precise range and limit has not yet been determined. The outcropping edge of this rock appears at a level very considerably below that both of the sandstone to the north, and of the limestones to the south. Its width, for the distance mentioned, varies from ten to fifteen miles, and it dips uniformly to the south-south-east.

The sandy limerock has not yet been examined with sufficient care to admit of accurate description. It contains but few fossils, but those few are sufficiently characteristic, were there no other considerations, to separate it from the lower limerocks and shales.

Upon the sandy limerock, to which reference is above made, rests the lower limerock and shales, and upon this last the upper limerock, both uniformly dipping to the south or south-east. These limerocks were described in general terms, in my third annual report, and although many additional facts have been gathered respecting their character, range and extent, it is, perhaps, unnecessary to lay them before you at this time. I will barely add, with respect to them, that the suggestion there mentioned, that a more careful examination of these limestones would render a farther division of the groups necessary, has been fully confirmed.

I had hoped to lay before you a profile section of the rocks of the upper peninsula, but the impossibility of having it engraved in time to accompany this report, has led me to defer it. I regret this the more, since many of the facts connected with a full understanding of the economical portion of this report, are so intimately dependent upon the general geology of the country, that, in the absence of correct maps, and without a profile section of the rocks, I fear it will be impossible for me to render the most important portion, so far as regards the prosperity of the state, intelligible.

As it is, I can only, in the place of this, lay before you a general section of the rocks of the upper peninsula, together with their thickness, so far as the same has been satisfactorily determined. This section is intended simply to represent the order in which the several rocks rest upon each other.

Having already described in general terms, the range and extent of the rocks of the upper peninsula, so far as the same have been examined, the limits of the present report will admit of nothing more than a general description of the charac-

Digitized by Google

ters of these rocks, and I shall not attempt a minute description of any members of the series, except such as are more or less connected with subjects which are supposed to be of immediate practical importance.

Section illustrative of the order of super-position of the Rocks of the Upper Peninsula.

		Thickness in feet.
9.	Tertiary Clays and Sands.	
8.	Upper Limerock Group, (embracing as members, the Drummond Island and Mackinaw limestones.)	
7.	Lower Limerock and Shales.	
6.	Sandy or Intermediate Limestone.	
5.	Upper or Grey Sandstone,	mean 700 feet.
4.	Lower or Red Sandrock and Shales,	extreme 6,500.
3.	Mixed Conglomerate and Sandrock,	extreme 4,200.
2.	Conglomerate rock,	extreme 5,260.
1.	Metamorphic, Trap and Primary rocks.	

Primary Rocks.

Although the usual ternary compound of quartz, feldspar and mica, occurs but rarely in the primary, in the vicinity of the coast of Lake Superior, and in fact but rarely in any portion of the range which I have visited, nevertheless, the great mass of rocks included within this range, may, in a broad sense, be called granite. The compound above referred to, is more common in the westerly than in the easterly portion of the

Digitized by Google

range. The more common rock is made up of quartz, feldspar and hornblende, giving rise to a very dark colored syenite; occasionally mica enters sufficiently into the compound to form syenitic granite, and sometimes the place of the hornblende in the syenite, is supplied by schorl or tourmaline, thus giving rise to a schorl rock.

The rocks of the south-easterly portion of the primary range of hills are more clearly defined as granite rocks, than those situated more northerly, for they are more distinctly and largely crystaline in structure, and quartz enters much more largely as a constituent into their composition. As we proceed north-westerly, from the south-east boundary of the primary, over the several broken ranges of hills, we find the character of the rocks in mass almost imperceptibly changing. The quartz as a mineral gradually forms a less important part, and it finally almost wholly disappears, leaving a binary compound of feldspar and hornblende, which then assumes a granular structure, constituting greenstone. The intermediate rock, between the syenite and greenstone ranges, may not inappropriately be called a syenitic greenstone.

The primary rocks which appear in the vicinity of Lake Superior, in the several ranges of hills extending from a point opposite little Presque Isle,* to Huron river, are essentially either syenite or syenitic granite. The rock, as a whole, is extremely compact, and the constituent minerals are mostly in small crystals, though occasionally the feldspar assumes a more largely crystaline form.

The granitic rocks, so far as the range has been examined, in a south-westerly direction, are largely traversed by dykes, that are almost without exception made up of materials in all respects identical with the greenstone, before alluded to, as forming the more north-westerly ranges of hills. The courses of these dykes or veins are invariably marked by striking changes in the character of the rock traversed, and in the larger dykes, the evidences of the changes produced by the heat of the injected matter, extend to several hundred feet upon either side of the dyke itself. The connection between the rocky matter composing these dykes and the ranges of greenstone, lying north-west, is clearly identified, not only by the perfect similarity in the mineral character, but also from the fact, that as we proceed in the direction of the ranges of greenstone, the dykes become much more frequent, until at length it becomes difficult to determine which of the rocks predominate in quantity.

These facts serve to throw much light upon the relative ages of the several ranges of hills, or in other words, serve to show the order in which they were severally uplifted; facts

* A little south-east from Riviere Des Morts.

Digitized by Google

which will be more fully shown when we come to consider the present position of the overlying sedimentary rocks. These facts are not only important, to enable us to understand the many changes which have taken place, with regard to the relative position of the land and water, but they are rendered of practical importance for the reason, which I think may be satisfactorily shown, that the mineral region of the upper peninsula, to be hereafter described, is strictly confined to only the outer portion of the rocks of a single epoch.

The veins and dykes of greenstone, referred to as traversing the granite rocks, do not in this portion of the group, appear to have any regular magnetic bearing, for they traverse the rock in all directions. Veins of any other matter are very rarely seen traversing the granite. In a single instance, what was regarded as a true vein of porphyry, having a width of nearly three feet, was noticed, which vein is crossed, at angles of 53° and 107°, by a vein of greenstone, having a width somewhat less than that of the porphyry. In this instance, the greenstone is clearly the most recent vein.

The veins of greenstone traversing the granite, vary from a mere line, to 50 or 60 feet in width. The intimate blending of the material composing these veins, together with the chemical differences, causes them to disintegrate or waste away more rapidly than the rock they traverse; the result of which is, that deep grooves are frequently left in the granite, the simple result of the wasting away of these dykes or veins. This is peculiarly the case upon the coast of the lake, where the rocks are subject to the action of the waves, which have, in some instances, so removed the debris as to leave long and narrow bays, with high perpendicular walls, occupying simply the space once occupied by the dyke. The Huron Islands, which are simple elevated granite knobs, appear, upon first examination, as a mass of rocks, completely rent in many places, with portions separated from each other by narrow clefts, having perpendicular walls of great height. While these rents are of sufficient width to admit of being traversed by small boats, the perpendicular walls are so little varied in their elevation as scarcely to leave a point, in these narrow passages, where a landing can be effected. A careful examination of these passages shows them to be simply the spaces once occupied by dykes or veins of greenstone, which having disintegrated, and the detrital matter having been removed by the action of the waves, has left the walls of the more enduring granite rock, unbroken and almost untouched.

Upon the north coast of Lake Superior, well defined granite and syenite, or syenitic granite, occasionally appear upon the immediate coast of the lake, but more frequently these rocks are flanked on the south by greenstone, with occasional nar-

Digitized by Google

row bands of sandstone; thus precisely reversing the magnetic order of those rocks upon the south coast.

Trap Rocks.

Were we to consider the rocks of the district under consideration, strictly in their chronological order, those rocks which I propose to treat as trap rocks, would undoubtedly *follow* those slates and quartz rocks which are considered as metamorphic, and which may be regarded as identical in time of uplift with those rocks before alluded to, as being intermediate between the granitic and trap rocks. The almost insensible gradations by which the granitic rocks pass into the greenstone of the trap formation, and the near analogy of the whole of the rocks of both formations, to each other, renders it more convenient, at the same time that it is more simple to follow the arrangement or order that I have adopted.

I have already stated that in passing from the granitic region on the south side of Lake Superior, in a direction north-westerly, we cross a series of ranges of hills, varying in height from three to nine hundred feet above the lake, and that in pursuing this course, we observe that the character of the rocks gradually and almost insensibly change, until at length they become well defined greenstone.*

The rocks of the outer or north-western range of hills, which were clearly the last of the series of uplifts, bears more unequivocally the evidences of igneous origin, than either of the outer ranges alluded to. The rock upon the south flank of these hills, is invariably very compact greenstone, while upon the north-westerly line it is almost equally invariably an amygdaloid, or at least, has an amygdaloidal structure. The causes of this difference of structure of the rock, upon the opposite sides of this range of hills, when carefully examined upon the ground, are very apparent; for it is evident, as will hereafter be shown, that the uplift of the rocks of this range of hills was wholly upon the south-easterly side, and while the rocks of this portion were in a solidified state, or, in other words, that a point in Lake Superior may be regarded as the fixed axis of the uplifted mass. That this was the case, is shown by the fact that the sedimentary rocks to the south or south-east are

* In the present report, I use the term *greenstone* in its generic sense, applying it to all the compact rocks, of a granulated structure, belonging to the trap range. By far the larger proportion of these rocks are greenstone, in its most restricted sense, or in other words are composed of feldspar and hornblende; but the term is also used to include rocks which in a strict sense would be considered as altered syenite, syenitic granite, hornblende rock and augitic rock.

The term *amygdaloid*, I apply, as it is usually applied to that portion of the rock having a difference of form simply, without any reference to the constituents of the rock. This generic use of terms is employed for the reason that the limits of the present report will not allow any thing more than a very general consideration of the subject. The term *trap* is used in such a sense as to include both the greenstone and amygdaloid, though it may sometimes prove that the amygdaloid has had its origin from the fusion of the lower portions of the sedimentary rocks.

Digitized by Google

scarcely disturbed, so far as regards this range of hills, while the sedimentary rocks on the north and north-westerly side, are invariably tilted to a high angle, near the range of hills, which angle gradually decreases as we pass farther and farther from the hills themselves. These sedimentary rocks, which upon the north side always dip *from* the range of trap hills, are in their close proximity to the trap, inclined at angles varying from 45° to 85°. Dykes of from fifty to four or five hundred feet are of frequent occurrence, traversing these sedimentary rocks, but the widest of these have invariably been protruded between the strata of the sedimentary rocks, and consequently have the same general inclination. The result of these frequent dykes, which occur at comparatively short distances from the main body of trap, is, that the sedimentary rocks frequently so far lose their original character as scarcely to be recognized.

The rocks of the complete north-western escarpment of this range of hills, were evidently in an intense state of ignition while in contact with the sedimentary rocks, as is clearly shown by the very great changes which have taken place in the rocks last alluded to. In fact, I am disposed to refer the origin of much of the amygdaloid rock to the fusion of the lower portions of the sedimentary rocks referred to, for the reason, that as we pass south from this junction, the amygdaloid rocks wholly disappear, their place being supplied by greenstone; and again so intimately are they blended, that it is frequently impossible to determine where the amygdaloid ceases, and the upper sedimentary rocks commence. Fragments of the sedimentary rocks, the characters of which can be clearly recognized, are not of rare occurrence, imbedded in the amygdaloid rock, a circumstance which although by no means conclusive, should not be overlooked in considering this subject.

I would not wish to convey the idea that the amygdaloid rocks have their origin exclusively from the altered sedimentary rocks, but simply that the change in the structure of the trap, from greenstone to amygdaloid, may and no doubt does depend upon the proximity of the sedimentary rocks to the trap, while the latter was in a state of ignition.

I have been compelled to tread upon grounds which may, perhaps, be considered theoretical, but it would appear to be necessary in order to convey a proper idea of the condition of the rocks composing the range of hills under consideration. These views, however, would not have been alluded to at this time, had it not been for the fact, that an understanding of all that relates to the mineral resources of this portion of our state, is more or less intimately connected with this portion of the subject.

Although the general range of the trap hills has been alrea-

Digitized by Google

dy given, I will define, as nearly as is in my power, the line of junction between the trap and sedimentary rocks, upon the north escarpment, premising that the elevation at which this junction takes place, is usually at a height of from 100 to 500 feet above the lake, and only in a single instance does this line reach the coast of the lake. Commencing almost directly at the extremity of Keweenaw point, this line passes in a south-westerly direction, gradually receding from the coast; it crosses Sturgeon or Portage lake near its centre, after which it recedes still more rapidly from the coast, until finally it is seen to cross the upper forks of the Ontonagon river, and soon after the whole is apparently lost in the range of the Porcupine mountains; which last range has a course so much to the south-west as probably to completely intersect the first range mentioned. On the west side of the Porcupine mountains, the range of hills and the line of junction appear again, but many miles farther north than they would have been looked for; from thence the true line gradually approaches the coast, until, at its point of crossing the Montreal river, it is but about 2 miles above the mouth of that stream.

To the north and north-west, through the whole of the distance described, this trap is bounded by hills of conglomerate and sandstone, more or less elevated, but usually not exceeding four hundred feet. To the north-west of these hills of sedimentary rocks, a dyke of trap is seen to extend for many miles along the line of coast of Keweenaw point, and so great is the width of the dyke, that, unless carefully examined, its character might easily be misunderstood. It lies in a plane parallel to the stratification of the sedimentary rock by which it is embraced, and with that rock dips to the north-west. The dyke is chiefly made up of greenstone, but not unfrequently large portions of the mass consist of amygdaloid, in which the amygdules are filled or composed of quartz, chalcedony, agate, calc. spar, zeolite, &c.

The dykes just referred to, so far as their relation to the amygdaloidal portion of the trap is concerned, as also the many others similarly situated with respect to the superincumbent sedimentary rocks, will be regarded in the same light as contemporaneous veins, though they are only contemporaneous with the uplift of the strata, and not with their deposit. But there is still another class of veins which not only traverse a portion of the trap rocks, but also the upper sedimentary rocks, and which may be regarded as true veins. These last mentioned veins traverse the rocks at a high angle with the line of bearing of the sedimentary rocks, as also with the line of junction of those last mentioned with the trap rocks. The composition of these veins is widely different from that of the contemporaneous veins or dykes before referred to. As this subject will be

Digitized by Google

treated more at length in a succeeding portion of this report, I deem it unnecessary at this time to refer more particularly to the subject.

A single knob of trap appears under circumstances which add very much to its interest, at what is usually known as Presque Isle, an elevated rocky point immediately north-west from Riviere Des Morts, and almost directly within the granitic region. This point of land has its origin from the simple elevation of a mass of trap rock, which rises on the north in abrupt cliffs, varying from twenty to sixty feet in height. The trap is mostly greenstone, though portions of it are so largely impregnated with a dark colored, almost black serpentine, as to deserve the name of serpentine rock.

The knob of trap under consideration is possessed of additional interest, from the unequivocal evidence of uplift, as also from the manner in which these evidences are exhibited. The cliffs of trap occupy the very extremity of the point, while the neck and central portions are made up of conglomerate or trap-tuff and sandrock, resting upon the trap. These upper rocks also appear upon the immediate coast, in cliffs of from twenty to sixty feet in height, and in many places they are seen resting directly upon the trap. The stratification of these sedimentary rocks has been very much disturbed, and they invariably dip, at a high angle, in all directions from the trap itself. The character of both rocks, at the immediate line of junction, is almost completely lost, and the evidences of change most unequivocally marked. But the most curious feature of the whole is, that the sedimentary rocks, for a distance of several hundred feet, have been completely shattered or broken into minute fragments, which, having retained their original position, were again cemented by the injection of calcareous matter. This injection has filled the most minute fissures, and so perfect is it, that, in looking upon the face of a mural cliff of these rocks, the veins may be easily seen at a distance of many rods, forming, as it were, a complete net work over the cliff, and so minute is it, that a single hand specimen frequently contains many hundreds of these veins.

This knob of trap, like the rock before described, is also traversed by veins, of a date subsequent to the uplift of the rock.

The whole of the north-western portion of Isle Royale is made up of trap, and in truth that rock constitutes, by far, the largest proportion of the rocky mass of the island. The two northerly ranges of hills, already alluded to as traversing the island, in its greatest length, are wholly trap. The most northerly range of hills, is composed almost exclusively of

Digitized by Google

greenstone, while the rock of the south or south-easterly range, becomes more decidedly amygdaloidal in its structure; thus reversing the order which these portions of the rock bear to each other upon the south shore of the lake.

The ranges of hills immediately bounding Lake Superior upon its north coast, are almost invariably either well defined trap or altered syenite, while the decidedly primary rocks usually appear in ranges of hills to the north of these; thus following the reversed order of the rocks upon the south coast.

The character of the trap rocks of Lake Superior has perhaps been sufficiently described, to answer the purpose for which this hasty sketch is intended; and I will only add, that they are usually distinctly jointed, and where they approximate to the sedimentary rocks, there is not unfrequently so distinct a cleavage, opposed to the joints in direction, as to give the appearance of stratification. The jointed structure of the trap rocks sometimes, though rarely, passes to what may be termed a rudely columnar structure. Upon one of the long rocky points forming the north-easterly extremity of Isle Royale, this rock assumes the columnar form, and the columns are tolerably well defined, having a height of from eighty to ninety feet. The columns are also seen, but less perfectly developed, forming the coast of a small rocky island, two or three miles south from the point last alluded to. These are the only points in the trap of Lake Superior, where I have noticed the rock to assume this form.

Metamorphic Rocks.

The general direction of the rocks composing this group, has already been described, and they are confined exclusively to the range of hills lying upon the south-east side of the granitic rocks. The general direction of these hills is south-west and north-east.

The outline of the hills of the metamorphic group is less broken than either the granitic or trap ranges, but these rocks sometimes rise in abrupt conical peaks, closely resembling those of the granitic rocks.

The area of country occupied by rocks of this group, is less than that of either the primary or trap, the general average width not exceeding six to eight miles. The precise limit of the group in a south-westerly direction, is not known.

It has already been stated that Chocolate river is the boundary, on the south-east, between these and the sedimentary rocks, and that they extend in a north-westerly direction from this stream to the granite, against which they rest. The group is made up of an alternating series of talcose and mica slates, sometimes graduating into clay slates, with quartz and serpen-

Digitized by Google

tine rocks, the quartz rock constituting by far the larger proportion of the whole mass. Since it would be nearly impossible to describe the alternations of these several rocks, in such a manner as to be understood, without the aid of a diagram, or section, no attempt will be made to do so.

The cleavage of all these rocks is usually north or north 10° west, at an angle, which, in the main, varies but little from 80°, but the mass of the group appears to dip regularly to the south or south-west. The talcose slates and quartz rocks alternate frequently with each other; and with the rock which has been called serpentine rock, less frequently.

The quartz rock is usually distinctly granular, though it is sometimes compact, with a conchoidal fracture. It usually separates by cleavage into masses, or strata, having a considerable degree of regularity, and varying from a few inches to several feet in thickness. The rock is usually more or less regularly jointed.

That rock which, for the sake of convenience, I have denominated serpentine rock, bears a close resemblance to greenstone, being essentially composed of granular feldspar and horneblende, with which serpentine is intimately blended. This rock only occurs in the talcose slate as we approach the granitic region, and possibly a more close examination may show it to be a simple series of dykes, lying parallel to the line of cleavage of the slate rocks.

The metamorphic rocks are occasionally traversed by trap dykes. The group of rocks under consideration has been comparatively little examined, and the more minute details connected with it, will be taken up at some future time.

Conglomerate Rock.

The lower of the sedimentary rocks, to which I have attached this name, appears to be invariably connected with, or to rest upon, the trap rock, nor has it been noticed, to any extent, in connection with either of the other lower rocks, for it wholly disappears as we approach the granitic and metamorphic groups. Of all the sedimentary rocks, this is the most variable in thickness, and not unfrequently does a few miles make a difference of several hundred feet. The conglomerate rock may, without doubt, be considered as a trap-tuff, which was gradually deposited or accumulated around the several conical knobs of trap, during their gradual elevation, and which would necessarily occupy the complete spaces or valleys between the several irregular ranges of knobs or hills.

If we regard this conglomerate rock in this light, we will at once perceive why the rock should be variable and irregular in its thickness.

Digitized by Google

The pebbles of which the mass of the rock is composed, consist of rounded masses of greenstone and amygdaloidal trap, of which the former make up by far the larger proportion, and scarcely a pebble of any other rock than trap, enters into its composition. These pebbles vary in size from that of a pea, to several pounds weight, but the average size may be stated at 1½ to 2 inches in diameter. The pebbles are usually united by a mixed calcareous and argillaceous cement, more or less colored by iron, and so firm is this union, that the most compact and tough of the greenstone pebbles, will frequently break through as freely as the cement, and crevices and narrow veins are frequently seen passing indiscriminately across the pebbles and cement. This fact is the more worthy of notice, since the pebbles are almost without exception, made up of the hardest and most indestructible portions of the trap rock.

The conglomerate rock can scarcely be said to occur in such form as to be well defined, in any portion of the country, excepting upon the northern flank of the outer trap range, before referred to. On the outer or northern side of Keweenaw point, the conglomerate commences near the extremity of the point, and extends several miles westwardly, forming a series of abrupt and precipitous cliffs upon the immediate shore, as also a range of well defined hills, a little in the interior; which hills have an elevation varying from 200 to 300 feet. After appearing for a few miles upon the coast, this rock gradually stretches into the interior, following the line before described as the most northerly boundary of the outer trap range of hills, and invariably occupying a place to the north of this range, and it may be observed, nearly or quite continuously, as far as Montreal river, which stream it crosses at a short distance above its mouth, thus making its complete length, within the limits of Michigan, computing its southerly curve, something over one hundred and forty miles; but the rock does not cease at Montreal river, for it may be seen at short intervals in the interior, as far westwardly as the head of Lake Superior.

At the trap knob of Presque Isle, the conglomerate is imperfectly developed, but on the south-westerly side of Isle Royale, it is more perfectly developed, flanking the hills of trap upon the southerly side.

The conglomerate rock is imperfectly stratified, in masses of immense thickness, and it dips, upon the south shore of Lake Superior, regularly to the north, and north-west,* usually at high angles, varying from 30° to 85°, while upon Isle Royale and the north shore, the dip is reversed, being south

* This variation in the dip is in conformity with the variation in the direction of the trap hills.

Digitized by Google

and south-easterly, or in other words, the rock upon all sides dips in the direction of the lake basin.

Upon the south shore of the lake, the thickness of this rock was not estimated at any point west from Montreal river, a little east from which it attains its greatest thickness, being, as estimated, 5,260 feet. In addition to the great variations in thickness, over comparatively small districts, the formation wedges out as we pass easterly along the range, and so rapid is this change, that near its easterly prolongation the thickness was estimated at something less than 1,000 feet.

The greatest estimated thickness of the rock upon the north coast, is a fraction less than 2,300 feet.

I have already stated that this rock is frequently traversed by dykes of trap, which are usually parallel to the line of stratification and dip of the rock. These dykes, which have sometimes a thickness of 50 to 60 feet, and even several hundred feet, are sometimes continuous for many miles, and are many times repeated. In addition to the dykes just alluded to, the rock is frequently traversed by veins of a more recent date, which traverse alike the trap and conglomerate rocks, always at very high angles with the line of bearing of the conglomerate. These veins, which are usually more perfectly developed near the line of junction of the two rocks, or for a distance of a few thousand feet upon each side of the junction, are clearly true veins, and since, with a few unimportant exceptions, they are the only veins belonging to this range which are metalliferous, they will be considered more fully under a separate head.

Mixed Conglomerate and Sand Rock.

This rock formation is made up of an alternating series of conglomerate and red sandstones, which rest conformably upon the conglomerate rock last described, dipping with that rock, into the bed of Lake Superior. The mixed rock was not noticed upon the north side of the lake, or upon Isle Royale, but upon the south shore the rock was traced continuously for a distance of about one hundred and thirty miles, extending from a few miles westerly from the extremity of Keweenaw point, to Montreal river. It follows the line of the conglomerate before described, stretching from Keweenaw point, in a south-westerly direction, and again curving to the north-west, forming as it were, a crescent between the points before mentioned, the result of which is, that the rock only appears for a very limited distance upon the coast of the lake, at Keweenaw point.

From a point about eighteen miles easterly from Montreal river, the rock wedges out rapidly as we proceed westerly

Digitized by Google

from that point, and as we continue towards the head of Lake Superior, the rock wholly disappears, or becomes merged in the conglomerate rock below, and the sand rock above. The greatest observed thickness of this rock, is 4,200.

The conglomerate portion of the mixed rock consists of strata of conglomerate, varying from a few feet to several hundred feet in thickness, and it is composed of materials in all respects resembling those constituting the conglomerate rock before described, and these materials are united by a similar cement.

The sandstone portion of the formation occurs in strata of very nearly corresponding thickness, and the two rocks may be said to form nearly equal portions of the complete mass. But the material of which this sandstone is composed, differs widely from that of the true sandrock lying above, for while the latter is chiefly made up of quartzose materials, the former is composed of materials bearing a close analogy in composition to those of the conglomerate rock itself; or in other words the sand consists chiefly of greenstone, so much comminuted as, when cemented, to compose a coarse sandstone. It will thus be seen that the members of this formation differ only in the degrees and fineness of the material, and the character of this material will explain sufficiently why the true conglomerate, and the mixed rocks are referable to the same origin, for the materials of the several members of the group have their origin from the trap rock, and as a whole, may, perhaps, be regarded as a trap-tuff.

The coarser conglomerate of the formation is scarcely separated by lines of stratification, and the strata appears usually in mass, embraced between the strata of sandstone, but the stratification of the latter rock is perfect, and it bears evidence of having been deposited in shoal water, in the very abundant, perfectly defined ripple marks which it exhibits through its complete range.

No fossils were noticed in connection with either the mixed rock, or the conglomerate lying below it.

Dykes of greenstone occasionally appear in the mixed rock, but less frequently than in the rock below. These dykes almost invariably occupy places between the strata of the rock, and correspond in position to the direction and dip of the rocks by which they are embraced, or in other words, the rocky matter composing the dykes appears to have been injected in a plane corresponding with that of the stratification of the embracing rock. As in the conglomerate below, these dykes have produced very great changes in the color and structure of the mixed rock bounding them upon either side.

In addition to these, the mixed rock is occasionally, (though less frequently than the rock below,) traversed by veins or

Digitized by Google

cross courses of a more recent origin than the dykes, (which latter they usually cross at a high angle,) their course usually being at an angle of at least sixty degrees, opposed to the line of bearing of the mixed rock. These cross veins are usually made up of calcareous spar or a sub-granular limestone, and more rarely of some variety of quartz, and imperfect trap rock, the latter of which is usually of the amygdaloid variety.

Red Sandstone and Shales.

That rock to which I have applied the name of red sandstone, is emphatically the chief rock that appears upon the immediate coast of the south shore of Lake Superior, and the same remark will apply, in a more limited degree, to the complete coast of the lake. A traveler proceeding westerly along the coast, from Grand Island to the head of the lake, would imagine he had seen little else than red sandstone, and in fact, were he to confine his examinations to the immediate coast, he would see no other rock for nineteen-twentieths of the distance. From Grand Island westerly to the mouth of Chocolate river, no other rock is seen in place, and from Chocolate river to Keweenaw point, embracing the complete width of the primary, metamorphic and trap ranges, the hills forming these groups are almost invariably surrounded or flanked at their bases, by this sand rock, so that even along this portion, the hills are, for a long proportion of the distance, cut off from the lake by a narrow belt of the rock under consideration, and westerly from Keweenaw point to the head of Lake Superior, no other rocks appear upon the coast, if we except several trap dykes in the vicinity of the Porcupine mountains, and a series of more recent deposits of clay and sand, that appear west from Keweenaw point. This sand rock also occurs upon the southerly side of Isle Royale.

The material of which the red sandrock is composed, differs widely from that of the sedimentary rocks before described, for while the rocks last referred to are made up of materials clearly of trappean origin, and in which the material is very rarely quartz, the rock under consideration is composed of materials, the predominating portions of which are clearly derived from the granitic and metamorphic rocks, and in which quartz occurs abundantly, though with this, there is usually associated more or less sand, that has all the characters of the comminuted trap, constituting that portion of the mixed rock before referred to. Magnetic iron sand, sometimes becomes a constituent of the red sandrock, and occasionally continuous strata of several inches thickness, are almost wholly composed of this material. The material composing this rock is usually cemented by calcareous matter highly colored by the per oxyd

Digitized by Google

of iron, though not unfrequently these are associated with argillaceous matter.

While the chief mass of the rock is a coarse grained, somewhat compact, sandrock, there are portions of the formation where there are well formed red and grey flags, and red and green shales, forming, as it were, beds of a very considerable thickness, and occupying large districts of country. These red and green shales are more largely developed in that district extending from Granite point westerly to Keweenaw bay, and upon the south side of Keweenaw point, extending from the head of the bay to near the extremity of the point, they are particularly largely developed. These shales more usually occur in alternating bands of deep red and green colors, the red usually largely predominating, and they are made up of argillaceous matter, with sand, the whole of the materials being of extreme fineness.

On the south-east side of Keweenaw bay, near its head, an argillaceous rock appears, and extends for a short distance along the coast, which is an anomaly. The rock is evidently embraced in, or rather may be said to constitute a member of the sandstone series, but it differs widely from any other rock seen in connection with it. This argillaceous rock sometimes appears in the form of a slate, though its most usual form is that of a compact strata, frequently of several inches thickness, and which closely resembles indurated clay. A peculiar appearance is given to this rock by the innumerable layers or very thin strata, which compose the mass, being of different colors, sometimes red, grey and dark brown, alternating in the same hard specimen.

The material of which this argillaceous rock is composed, possesses an extreme degree of fineness, and is so soft as readily to be cut with the knife, which qualities render it a fit material for the manufacture of pipes, to which purpose the Indians of the country have long applied it. It has also been applied to use in sharpening tools, but its softness is a serious objection to its use for that purpose.

A similar argillaceous rock also appears at several other points in the interior, or southerly from that already described, but as yet I have been unable to determine its thickness at any point. The finely represented bands or zones, which may fairly be supposed to represent the original lines of deposition, are very much contorted, and in such a manner as to lead to the conclusion that this change must have taken place very soon after the deposition of the rocks, and while they were still in an unindurated state.

The rocks belonging to the red sandstone formation, bear the evidence of having been almost universally deposited in shoal water, for ripple marks occur abundantly at all points

Digitized by Google

where the rock takes on the decided character of sandrock, and these ripple marks may frequently be seen, for many rods together, as distinctly and clearly defined as they are at the present day in the loose sands forming the bottom of some of the shoal bays of Lake Superior. Fossils are rare in the red sandstone, and in fact, I have never seen any other than fucoides, of which there are three species, that are tolerably well defined.

The red sandrock is less frequently traversed by dykes of trap than either of the rocks before described, though dykes were sometimes noticed traversing the whole of the several rock formations, up to and including the red sandstone. Upon portions of the north coast, where the conglomerate and mixed rocks are more frequently wanting, and where the red sandrock is brought more nearly in contact with the trap, these dykes are of more frequent occurrence. It is deserving of remark, that where the lower rocks are either wholly or in part wanting, the red sandstone usually becomes of a deep brown color, and the material of which the sand is composed, gradually changes from that before described to greenstone.

I have already stated that the sandrock, at its westerly prolongation, attains its greatest thickness, which was estimated at 6,500 feet, but as the rock continues easterly, it gradually and quite regularly diminishes in thickness, and beyond Saut de Ste Marie, the thickness is very inconsiderable. The average rate of diminution which takes place in the thickness of the rock as we proceed easterly, was shown by a great number of observations, upon the south-westerly portions of the coast of Lake Superior, to be a fraction over fifteen feet to the mile, but this rate of decrease could not be satisfactorily estimated upon the lower or easterly half of the coast. The red sandrock thins out as we proceed southerly or inland from the coast, at a still more rapid rate, as was most satisfactorily shown, where it is connected with the several primary, metamorphic and trap ranges of hills, for all or nearly all the valleys, after passing the outer or northerly range of trap hills, are based upon this sandrock, and since we have every reason to believe that this sandrock was deposited in part, during the gradual elevation of the several chains of hills, it would follow, that over those districts which were last elevated, the rock would attain its greatest thickness. I have already alluded to the order in which the several ranges of hills appear to have been uplifted, and since more particular reference will be made to this hereafter, I leave the subject for the present.

The red sandrock south from Lake Superior, as well as upon the immediate coast, dips regularly northerly, while that upon the north coast dips invariably southerly, or, as has already been said of the lower rocks, this rock dips, upon all

Digitized by Google

sides, regularly into the basin of the lake. The quantity of dip is exceedingly variable, being always very much increased as it approaches the trap, and diminishing as it approaches the primary and metamorphic ranges.

The line of cleavage of some of the members of the lower sandrock and shales is frequently irregular, and opposed to the true stratification of the rock.

Upper or Gray Sand Rock.

The only remaining rock which separates the red sandrock from the limestones lying to the south, is a gray, or brownish sandrock, that is almost wholly composed of grains of quartz, usually feebly cemented with calcareous matter. The composition of this rock differs from that of the lower sandrock, in being more exclusively quartz, while in epoch of deposition, the rock under consideration should not be confounded with that of the red sandstone. It has already been stated that the red sandrock of the south coast, dips regularly northerly, while the upper or gray sandstone dips equally regularly south or south-easterly, in which respect the last mentioned rock conforms to the limestones resting upon it, while it rests itself upon the uplifted edge of the red sandrock, below.

I have already stated that this rock was first noticed, rising in hills, at a point not far distant from Riviere Ste Marie, and south-east from Point Iroquois; from this point, it stretches westerly in an elevated and very regular chain of hills, that are upon the coast, as far as Tequoimenon bay; westerly from which the shape of the coast is such that these hills do not again appear upon it, until we reach that precipitous portion of the lake coast known as the Pictured rocks, where the fury of the waves, aided by frost, has acted upon the feebly cemenmented material of which the rock is composed, to such an extent as to leave large portions of what was originally the northern escarpment of these hills, along this coast, in high mural and overhanging precipices. Westerly from the Pictured rocks, the ranges of hills, which are composed or made up of this rock, stretch in a south-westerly direction, passing completely to the south of the primary, trap and metamorphic regions. The westerly prolongation of this rock has not yet been determined.

The upper sandrock, like the lower, abounds in clearly defined ripple marks, and its line of cleavage is very irregular, frequently being opposed to the line of stratification over very considerable districts of country. Two indistinct species of fucoides were all the fossils noticed in connection with it.

I was unable to obtain any observation upon the thickness of the upper sandrock, which were satisfactory, but from the

Digitized by Google

imperfect observations which were obtained, I was led to conclude that the average thickness as far westerly as the Pictured rocks, does not vary very far from 700 feet. The upper sandrock, like the rocks before mentioned, wedges out as we proceed, in an easterly direction.

Tertiary Clays and Sands.

As in the lower, so in the upper peninsula, the older rocks are more or less covered by deposits that may be severally arranged under the above head. To these deposits it is my intention, at the present time, barely to allude.

Stratified clays and sands, similar to those skirting the borders of the lower peninsula, are seen at many points, and continue for long distances upon the coast of Lake Superior; and they are also largely developed at many points in the interior of the country. These deposits sometimes attain a thickness of from 200 to 300 feet, and they are spread over the less elevated portions of the district. The character of these clays and sands bear a close resemblance to those described in a previous report, as occurring upon the lower peninsula.

ECONOMICAL GEOLOGY.

Rocks.

The series of limerocks resting upon the sand rock last described, were noticed in the report which was laid before you at a previous session, and the limits of the present report will not permit me to refer to them, more fully, at this time. My observations will, therefore, only include those rocks which lie below the limestones. It will be borne in mind that the whole of the group of limestones are embraced in the southerly portion of the upper peninsula, and that their outcropping edges do not reach within many miles of the coast of Lake Superior. This is an important fact, for it shows the whole of the northern part of the upper peninsula to be deficient in materials for the manufacture of lime, which are, in truth, wholly wanting.

Materials adapted to the purposes of building, abound, throughout the district of country under consideration, and though they vary exceedingly in value for that purpose, yet no portion of the country can be said to be without a supply.

Among the most valuable of the materials for this purpose, the syenites and syenitic granites deservedly rank first, and they occur of a quality which may be advantageously worked at various points in the primary range. Some of the syenites near the coast of the lake are so situated as to be readily quarried, and they may be made to furnish a beautiful and durable material for building. The color of these syenites is usually a

Digitized by Google

very dark gray, from the predominance of hornblende in the composition, but this is by no means invariably the case.

The metamorphic group scarcely furnishes a fit material for use as a building stone, for the structure of its schists would be an effectual bar against their use, and the difficulties of working the quartz rock will probably prevent that rock being applied to that purpose.

Some of the compact greenstones and altered syenites of the trap range, may be made to furnish an excellent building stone, which, although in powers of resisting the action of disintegrating agents, may be less than that of the unchanged syenite, nevertheless possess a very great degree of durability. The greenstone ranges of hills, frequently for very considerable distances, are made up of rock in which the jointed structure is so perfectly developed, that regular blocks, of a convenient size for building may be obtained, with comparatively little labor.

The conglomerate rock is scarcely applicable to use for purposes of building.

A very good building stone may be obtained from many portions of the lower, or red sandstone formation, and though the cement of this rock is usually not very perfect, yet, frequently, such changes have taken place in the rock, that it has almost taken on the character of granular quartz rock, in which cases, its durability is very much increased. The strata of this rock are usually of a convenient thickness to admit of being easily quarried, and they are so regular that the stone will require but little dressing.

The upper, or gray sandrock, being almost uniformly but feebly cemented, and sometimes decidedly friable, is of less value as a building stone than either of the rocks before mentioned. Those portions of the upper sandrock where the calcareous cement is perfect, but not sufficiently hardened, might be rendered much more capable of resisting the action of the elements if allowed to remain under shelter a sufficient length of time to allow this change to take place.

The value of the limestones of the southern part of the peninsula, for the purposes of building, as also for the manufacture of lime, was mentioned in a previous report upon the geology of that district of country. As has already been stated, these limerocks do not reach within many miles of the coast of Lake Superior, and it is certainly to be regretted that the shore of the northern portion of the peninsula is destitute of this important material. Nor have I seen any marls of sufficient extent, in the district, to admit of application to any of the purposes to which it is applicable, or to supply, even in part the deficiency in limestone. All the lime which would appear to be capable of being applied to practical purposes, is

Digitized by Google

that of the calcareous spar, composing the veins traversing the sandrock, and these are not only rare, but they are also of very limited extent.

Minerals and Mineral Veins.

In considering this portion of the subject, I propose to treat the minerals of the different formations separately, so far as the same can be done, and although this method will necessarily cause some repetition, it will enable me to show, more perfectly than could otherwise be done, the connection between those minerals that may be regarded as of practical value, and the rocks to which they belong.

As a whole, the rocks of the upper peninsula are deficient in *number* of minerals, though some few individual *species* occur abundantly.

Minerals of the Primary Rocks.

The following list can by no means be regarded as perfect, but it will serve, at least, to convey an idea of the small number of minerals which are found in connection with the rocks of this group.

Schorl,	Mica,
Tourmaline,	Feldspar,
Hornblende,	" red,
Actynolite,	Quartz.

Minerals of the Metamorphic group of Rocks.

Quartz, common,	Iron, scaly red oxide of,
" milky,	" hæmatite,
" greasy,	" pyritous,
" tabular,	Steatite,
Serpentine, common,	Novaculite.

Of the minerals enumerated as occurring in the metamorphic rocks, the milky variety of quartz is abundant, sometimes composing almost entire ranges of hills. The novaculite is also abundant, but of a coarse variety. This last is associated with the talcose slates. The remaining minerals appear either disseminated, or forming druses in the quartz rock, though sometimes they occur in thin beds or veins, in the talcose slate, which beds conform to the line of cleavage of that rock. Although the hæmatite is abundantly disseminated through all the rocks of the metamorphic group, it does not appear in sufficient quantity, at any one point that has been examined, to be of practical importance.

Digitized by Google

Minerals of the Trap Rocks.

Quartz, common,
" smoky,
" milky,
" greasy,
" radiated,
" mamillary,
" drusy,
" amethystine,
Chalcedony,
Carnelian,
Jasper,
Agate, common,
" fortification,
Augite,
Actynolite,
Serpentine,
" pseudomorphous,
Chlorite, common,
" earthy,
Steatite, common,
Asbestus,
Amianthus,
Calcareous spar,
Copper, native,
" pyritous,
" black,
" red oxyd of,
" azure carbonate of,
" green carbonate of,
" " " ferruginous,
Lead, sulphuret of,
" carbonate of,
Iron, pyritous,
" red oxyd of,
" hydrate of,
" silicate of,
Manganese, ferruginous ox. of,
Silver, native, (very rare.)

Since a consideration of the minerals contained in the trap, will also involve a portion of those embraced in the conglomerate, the mixed rock, and red sandrock and shales, I will, before referring minutely to those of the trap rocks, lay before you a list of those which occur most frequently in the sedimentary rocks last mentioned. The fact that veins of mineral matter, traversing the trap, are frequently continued across the several sedimentary rocks, and that dykes are of frequent occurrence in these latter rocks, would lead to the inference, that there would be a considerable degree of resemblance in the character of the minerals embraced in these dykes and veins, in both the trap and sedimentary rocks, and to a certain extent, this inference would be true; but it should be borne in mind, as has already been stated, that the veins, in traversing the several upper rocks, undergo very great changes in mineral character.

Minerals of the Conglomerate, Mixed Rock and Red Sand Rock.

Calcareous spar,
Quartz, common,
" milky,
" drusy,
Chalcedony,*
Carnelian,*
Copper, native,†
" pyritous,†
" blue carbonate of,†
" green carbonate of,†
" earthy green carb. of,†
" black,†

*Occasionally occurring among the pebbles constituting the mass of the conglomerate.
† Chiefly in those portions of the veins traversing the conglomerate.

Digitized by Google

Jaspar,*
Agate,*

Zinc, silicious oxyd of,
" carbonate of,

Iron, pyritous,
" black oxyd of, (cemented iron sand,)
" red oxyd of,
" hydrate of,
" silicate of.

Mineral veins of the Trap, Conglomerate, &c.

In order to render the subject of the mineral veins traversing the above rock, so far intelligible as may be in my power, I have already been particular to define, as far as could be done without maps and sections, the relation which the trap rocks, together with the superincumbent conglomerate, mixed sand and conglomerate and red sandrock bear to each other, and it will be necessary, in considering the mineral contents of these rocks and the veins traversing them, to keep this relation constantly and clearly in view.

It will be recollected, that the north-westerly range of hills, commencing at the extremity of Keweenaw point, and stretching from thence in a south-westerly direction into the interior, were referred to as being more clearly of trappose origin than either of the other ranges, and that the rock of the southerly portion of this range is either compact greenstone or altered syenite, while that of the northerly flank is almost invariably either an amygdaloid or a rock approaching to toadstone.

The several ranges of hills to the south of that last alluded to, are either well formed, compact greenstones, altered syenite, or, (as we approach the primary range,) imperfectly formed granites. So far as the several ranges of hills, lying south from the northerly range, are concerned, they would appear to be, as a whole, deficient in minerals, and the rocks are not apparently traversed by veins or dykes of any more recent date than that of the uplift of the northerly trap hills.

Veins clearly of a date posterior to the uplift of that portion of the trap rock last mentioned, are of frequent occurrence, and these veins not only traverse a portion of the trap range, but also pass into the conglomerate, and sometimes completely across the three sedimentary rocks, immediately above the trap, thus having an unbroken length of several miles. The class of veins to which I now allude, where they occur in a connected or continuous portion of the range, rarely vary more than 12° to 15° from a right angle to the line of bearing of the sedimentary rocks, and in pursuing this course, they necessarily cut across the dykes of trap before alluded to as frequent-

*Occasionally occurring among the pebbles constituting the mass of the conglomerate.

Digitized by Google

ly appearing between the strata, and conforming to the dip of the lower sedimentary rocks.

That the veins under consideration belong to a single epoch, is inferred from the fact, that none have been noticed with other veins crossing them, as also for the reason that none have ever been noticed with dislocations, heaves or disturbance of any kind, save what may be referred to causes connected with their immediate origin.

That these veins must be regarded in the strictest sense as true veins, cannot be doubted, and that their origin or source, over the extended district alluded to, has been the same, is inferred from the perfect identity of their mineral contents; for a description of one of these true veins may be said to be essentially a description of the whole. Thus, while the mineral contents of the different portions of the same vein change as the rock traversed changes, the corresponding portions of different veins almost invariably bear a striking and close resemblance to each other.

These veins, as has already been stated, where they traverse connected ranges of the trap, are regular in course and direction, but when they are connected with a single uplifted knob of that rock, they are irregular and can scarcely be defined, appearing, in the latter instance, rather as matter injected into the fissures of a shattered mass of rock, than as connected veins.

The importance of carefully studying the relation which these veins bear to the rocks which they traverse, as also the relation which they bear to the numerous trap dykes, together with the few cotemporaneons veins noticed in the trap, is very much increased by the circumstance, that these veins are more or less connected with, or rather contain, metallic materials, which, it may be fairly inferred, will hereafter become of very considerable practical importance. In fact, so far as we may be enabled to judge from the examinations already made in this district of country, it is confidently believed that most, if not all the metalliferous veins of the upper peninsula, belong to veins of the epoch of those under consideration. It is true that native metals, more particularly copper, are sometimes found, in place, occupying the joints or natural septæ of the greenstone, but in these instances, the amount of metal is always comparatively small, and, with one or two exceptions, I have invariably been able to establish some connection between the native metal occupying these joints and the termination of some metalliferous vein that traverses other portions of the rock not far distant, and it is believed that the metal filling these joints has invariably resulted from the action of causes precisely analagous to those which have placed similar metals in the veins to which I have alluded.

Digitized by Google

The earliest as well as all travelers, who have visited the district of country under consideration, have not failed to make frequent allusion to the loose masses of native copper that have been occasionally found scattered over it, nor has any one failed to allude to the large bowlder or loose mass of that metal upon the Ontonagon river. Almost invariably, the opinion has been expressed, from the frequent occurrences of these masses, that the metal must be abundant in the country. But, after all, the true sources from which these masses had their origin, or the relation which they held to the rocks of the district, would appear to have never been understood; and all, or nearly all, that was known of their true relations, was left to conjecture. The result of this has been, that while some have excessively magnified every thing connected with a subject of which, in truth, nothing was known, another class, equally far from what is really true, have regarded these masses of native copper as bowlders transported from high northern latitudes.*

As far back as 1831 and 1832, I had occasion to pass, no less than three times, along the south coast of Lake Superior, as also to ascend several of the important tributaries of that lake, and during these years, I passed by three different routes, widely separated from each other, completely across to the Mississippi river. It is true that these journies, made through a complete wilderness, uninhabited except by savages, were necessarily made under circumstances that admitted of only very general observations; but the result of these previous examinations have proved of immense service to me, in aiding the labors of the past season. I allude to these journies and examinations at this time, in order to show you the difficulties by which a full understanding of the subject under consideration is surrounded. for I became satisfied at that time, not only that the subject was not understood by the mass of those who had traversed the country, but that even the natives of the country had no knowledge of the true sources from which the transported masses of copper had their origin.

During the time of the examinations referred to, a bare glimmer of light was thrown upon the subject by an examination of some small masses of copper, found occupying the joints of the greenstone; as also by the examination of a single vein in the conglomerate, containing the ores of copper, which has

*The vast area of country over which the bowlders of native copper, from the district under consideration, (together with its westerly prolongation,) have been transported, is worthy of remark. They are not of unfrequent occurrence in the sand and gravel of the southern peninsula of Michigan, and since the commencement of the geological survey, many of these masses have been met, some of which weigh from seven to eight pounds. In the vicinity of Green bay, a mass was discovered, some ten years ago, which weighed 140 pounds, if my memory serves me correctly. Loose masses of a similar character have been met with in various other portions of Wisconsin, as also at various points in Illinois, Indiana and Ohio. In these cases, the occurrence of these masses of native copper are no more indications of the existence of veins of the metal in the immediate vicinity, than are the immense numbers of primary bowlders scattered over the southern peninsula of Michigan indications of the existence of primary rock in place, in the district where they are found.

Digitized by Google

since been found to be the termination of a vein that is somewhat obscurely continued from the trap region. While these examinations were sufficient to enable me to draw the inference that the masses of native copper came chiefly, if not wholly, from the trap, and more rarely from those sedimentary rocks resting immediately upon it, it was supposed that this occurrence would follow the general law, and that it, together with the other ores of the metal, would occur in greatest abundance near the line of junction of this rock, with the overlaying sedimentary rocks. Nothing, or at least very little, was known of the true extent or range of the trap rocks, and the very great inaccuracies in the published maps of the country, rendered it almost impossible to apply even the data on hand to such purpose as to relieve the embarrassment.

With a full knowledge of these difficulties, I determined, during the past season, to endeavor to surmount them by so far adding to our geographical knowledge of the coast of the lake and its immediate vicinity, as to enable me to place whatever geological observations of importance might be made, in such condition that the relations of the several parts might be understood. Having sufficiently accomplished this, I proceeded to a very minute examination of the several rocks overlaying or resting against the trap, together with a determination of the thickness of the several members and their rate of decrease or wedging to the east. With these data I was enabled, by noting the dip of the rock upon the coast, to determine, with sufficient accuracy for the purposes to which the rule was to be applied, the line of junction between the trap and conglomerate rocks. This rule, when put in practice, enabled me to decide, with a very considerable degree of certainty, this line of junction, when the rocks were covered with a very considerable thickness of detrital matter, and when so covered, I was enabled, by traversing the country, on the line of bearing of the upper rocks, the more readily to gain access to such points as would admit of examination.

These observations soon showed me that this line of junction between the trap rock, and the south edge of the conglomerate, instead of pursuing a course parallel to the coast, only continued its parallelism for a few miles westerly from the extremity of Keweenaw point, after which, for a long distance, it recedes from the coast rapidly. These facts served to explain in part, why the subject of the origin of the masses of copper had remained a mystery, for the country through which this line passes is hardly ever passed over, even by the Indians, and probably large portions of it have never been passed over by whites, but in addition to this, the obscure character of the metalliferous veins is such, that they would scarcely attract the observation of the traveler whose attention was not called

Digitized by Google

especially to the subject, for many of the richest ores are so far from having the appearance of the pure metal, that they would be the last suspected to contain it in any form.

That the connection of these ores with the containing rocks was not understood by the English mining company, whose attention was turned to this subject, at an early day, is to be inferred from the fact that they commenced their operations at Miners' river, where the rock is the upper or grey sandstone, which has never been observed to contain mineral veins; and also on Ontonagon river, near the mass of native copper, at which point a shaft was commenced and carried about 40 feet through a reddish clay, at which point the red sandrock was reached. Now, although the metalliferous veins sometimes pass from the trap across the red sandstone, these veins in the red sandrock have never been noticed to contain any other ores than those of zinc and iron, unless it be at the immediate point where the vein crossing comes in contact with a dyke of trap, which condition does not exist at the point alluded to, on Ontonagon river. What indications could have induced these Quixotic trials at the points where they were commenced, is more than I have been able to divine, and as might have been anticipated, the attempts resulted in a failure to find the object sought.

Having thus, in a general manner, set forth the obscurity by which the subject of the true source of the transported masses of native copper has been surrounded, together with some of the reasons which have served to prevent its being fairly understood, I will now proceed to a general sketch of the metalliferous veins of the district, so far as the same have been examined; premising, that our knowledge of them is still deficient in very many important particulars, which can only be supplied by a careful and continued examination of the subject, which, in fact, can only be said to be just commenced.

I have had occasion to refer to the outer or northerly range of hills, or those from which the metalliferous veins may be said to spring, as being composed of trap rock, and lest what has been said may not be fairly understood, I will repeat, that the more southerly part of the range is uniformly composed of compact greenstone, under which head I not only include true greenstone, but also those forms of altered granular gneiss and gneissoid granite, which sometimes are associated with it, while the outer or northerly portion of the same range is usually composed of an amygdaloidal form of trap. The cells of the amygdaloid are usually filled with the different varieties of quartz, carnelian, chalcedony and agate, and sometimes, though more rarely, with native copper, or with calcareous spar,

Digitized by Google

though they are sometimes entirely empty, constituting a perfect toadstone.

The metalliferous veins cross this range of trap, usually very nearly at right angles to the prolongation of the hills, and are frequently continued in the same course, across the upper or sedimentary rocks, thus crossing the latter at an angle varying but little from their line of bearing. While the continuity, of course, of the vein, may remain perfect in its complete passage from the greenstone across the several members of the conglomerate, mixed and red sandstone rocks, the character and mineral contents of the vein undergoes essential change, and not only does the vein appear to be influenced in its mineral contents, but also in its width, for, as a general rule, the width of the vein increases as we proceed northerly, or from the greenstone. Thus, a vein which may appear of only a few inches in width, or as a bare line in the southerly or greenstone portion of the range, increases in width rapidly as it approaches and passes across the amygdaloid, and at or near the line of junction between the amygdaloid and the sedimentary rocks it will frequently be found to have attained a thickness of several feet, while in its passage across the sedimentary rocks it is usually either still further increased in width, or becomes so blended with the rock itself, as to render it difficult to define its boundaries.

These metalliferous veins, like those which occur under similar circumstances in other portions of the globe, do not continue uninterruptedly of any given width, for great distances, nor is their width increased regularly, for they frequently ramify or branch off in strings, that pursue a course generally somewhat parallel to the general direction of the main vein, and which eventually again unite with it. Sometimes these ramifications or branches destroy, as it were, for a considerable distance, the whole vein; but they at length unite again, and the main vein is, after their junction, as perfectly developed as before.

While traversing the most compact, southerly portions of the greenstone, the veins are most frequently made up of a very compact and finely granulated greenstone, sometimes associated with steatitic minerals and silicate of iron, under which circumstances they usually are destitute of any other metallic mineral, but occasionally, instead of the materials above mentioned, their place is supplied by native copper, without vein stone or matrix, and usually free from nearly all earthly impurities, but almost invariably incrusted with oxyd, or carbonate of the metal. Those portions of the vein traversing the greenstone, in which native copper occurs, under the circumstances above mentioned, are invariably thin, rarely exceeding three to four inches in thickness, and usually conside-

Digitized by Google

rably less, and they are liable to very considerable variation in width, from the divergence caused by the vein traversing the joints of the rock, where these joints produce the same character of change as is produced by the ordinary ramification of a vein.

As these metalliferous veins traverse the northerly portion of the range, or approach the sedimentary rocks, they undergo a gradual change in width as well as in mineral character, and it has been noticed that where the amygdaloid is most largely developed, the vein, as a general rule, has not only a greater width, but also has its mineral contents more perfectly developed, a circumstance which might fairly have been inferred from the fact that those points where the amygdaloid occurs most largely, may be regarded to have been so many centres of intensity of action, at the time of the original uplift of the range, from which circumstance they would remain in a softened state, or in such condition as to admit of the more perfect formation of these cross veins for a longer space of time after that condition had been passed at other points.

In the outer or amygdaloid portion of the rock, the vein is almost invariable accompanied by a veinstone of quartz, involving all the varieties before mentioned, as associated with the trap rocks, which quartz, though occasionally it occurs massive, of several feet in width, usually appears in the shape of a series of irregularly ramifying and branching minor veins, that may be said to constitute the main vein. These subordinate veins of quartz, which may be stated as the true veinstone, vary from a mere line to several inches in thickness, and in the aggregate they may be said to constitute from one-third to one-half the total thickness of the vein. In their branches and ramifications, they sometimes include portions of the rock which they traverse, at other times they embrace imperfectly formed steatite, with silicate, carbonate and red oxyd of iron,* and occasionally, though more rarely, it is associated with carbonate of lime, usually assuming the form of an opaque rhombic spar.

As the main vein traverses the conglomerate and overlaying rocks to, and including the red sandstone, these veins, as a general rule, undergo still farther changes, for very soon after entering the conglomerate, the veinstone changes from its quartzose character, and is made up, either wholly, of calcareous matter, mostly rhomb spar, or of this mineral with occasional ramifications of quartz. The whole usually including, and sometimes investing fragments of the conglomerate or the pebbles of that rock, separated.

As the vein is continued still farther in the direction of, and into the red sandstone, these changes are still noticed, and

* The latter closely resembling the Gossan, of the Cornish miners.

Digitized by Google

eventually the vein is found to be composed either entirely or mostly of calcareous spar, and eventually so completely is its metalliferous character lost, that it would not if examined singly, be suspected to be any portion of a metalliferous vein.

The metalliferous character of these veins is most largely developed almost directly at or near to the line of junction of the trap and sedimentary rocks, and they rarely continue, without considerable change, for a greater distance than one-fourth to one-third of a mile, on either side of the line, though a few veins were noticed in which, in the southerly or trap extension, the character of the vein continued for a distance of over a mile, nearly unchanged, while in its passage through the conglomerate, for half that distance, its charncter was also perfectly preserved.

The mineral character of the veins is somewhat varied in those having different degrees of thickness, though it is difficult if not impossible, to lay down any rule which would characterize this change. The different veins vary very greatly in width, ranging from a mere line to 14 or 15 feet—the greatest observed width of any single vein.

In the descriptions of the veins given above, I only intend to include those which are most perfectly developed, for, in addition to these, there are also many which are imperfectly formed and short, and in which many of the above characters are in part or entirely wanting. These latter are usually of little practical importance, and thus far have been comparatively little examined.

Of the metallic minerals occurring in those portions of the *true* veins which traverse the trap rocks, together with that portion of the conglomerate immediately resting upon or against the trap, by far the most important, consists of the several ores of copper, with which iron occurs, disseminated in the forms before described, and occasionally, though very rarely, native silver has been detected, associated in the same vein. After as minute an examination of the subject, as circumstances will permit, I am led to the conclusion, that the only ores of the metallic minerals, occurring in those portions of the veins, which traverse the rocks last alluded to, which can reasonably be hoped to be turned to practical account, are those of copper.

In these portions of the veins, the metal referred to, occurs very frequently in the form of native copper, with which are associated the red oxyd, azure carbonate, green carbonate, and more rarely what may be denominated copper black, and still more rarely, pyritous copper. *None* of these have been noticed in a crystaline form.

It must not be imagined that these several minerals make up the whole or even any very considerable portion of the entire length and breadth of the veins, in which they occur, for they

Digitized by Google

are distributed in bunches, strings, and comparatively narrow sub-veins, in a manner precisely analagous to that in which these ores are usually distributed, in similar rocks, in other portions of the globe. The quartz veinstone, before described, has always so much of the green tinge communicated by the carbonate of copper, that it cannot fail to be detected; but the presence of disseminated native copper, in this veinstone, would, at first, hardly be suspected, and it is not until a fresh fracture has been made, and the mineral closely examined, that the numerous dark points and minute threads are discovered to be copper in a native state. Large portions of this quartz veinstone, (when the included metal can scarcely be detected by the naked eye,) when examined with a glass, are found to contain very delicate threads of native copper, that traverse the quartz in every possible direction, and so completely is this latter mineral bound together, that it is fractured with difficulty, and its toughness is very greatly increased.

The specific gravity of this veinstone is very considerably above that of ordinary quartz, and usually, the difference is so considerable, even in those masses where the copper can scarcely be detected by the naked eye, as to be apparent to even the most careless observer. But in addition this finely disseminated condition of the native copper in the veinstone, it is also disseminated in a similar manner through the rocky matter embraced by the veinstone and in the amygdaloid and conglomerate portions of the rocks, it sometimes extends, for a distance of from two to three feet into the rocky matter on either side of the veins, sometimes completely, or in part, filling the cells of the amygdaloid rock.

The conditions above described refer to the main portions of the veins only, while there are other portions in which the copper appears to be concentrated in larger masses, constituting bunches and strings, and in which places the sides or walls of the veins are sometimes wholly made up of thin plates of native copper. In these portions of the metalliferous veins where the metal appears, as it were, to be concentrated, it also occurs, much in the form before described, except that the masses of metal vary from the merest speck to that of several pounds weight. In opening one of these veins, at a concentrated point, the observer, unless he had previously examined other portions of the vein, would be led to erroneous conclusions as to its richness, a source of error which cannot be too strongly guarded against; for while the vein, for a short distance, may be found to be exceedingly rich in mineral, the mineral in another portion of the vein may either wholly or in part disappear, a condition which is similar to that observed in those veins of copper that have been extensively worked and

Digitized by Google

found to be most productive, on the continent of Europe and the Island of Great Britain.

The excess of native copper, (compared with the other ores,) which occurs, *in these portions* of the veins, is a peculiar feature, for it may be said, in truth, that other ores are of rare occurrence. In those portions of the veins traversing the trap, and where other ores do occur, it is usually under such circumstances as to favor the presumption that their origin is chiefly from that which was previously in a native form; for the carbonates and oxyds, almost invariably appear either investing the native copper, or intimately associated with it, though they sometimes appear in distinct sub-veins. Pyritious copper is so rare, in connection with the trappean portions of the veins, as scarcely to deserve notice.

I have already stated that native silver, occasionally, though very rarely, occurs in the trappean portions of these veins, intimately associated with the copper, but it is in so minute quantities as to render it probable that it will not prove of any practical importance. Other mixed compounds of this metal occur so rarely as scarcely to deserve notice.

Leaving the trap rock, the character of these veins, as they traverse the conglomerate, undergoes important changes; for not only does the veinstone become gradually changed, from quartz to calcareous spar, but the amount of native copper diminishes, and its place is either supplied wholly or in part by ores of zinc and calcareous spar, or wholly by this latter mineral. There are, however, occasional exceptions to this *general* rule, for occasionally the place of the native copper in the veins, in their passage through the conglomerate, is supplied by a variety of complex compounds of the same metal, which compounds are of exceeding interest; but this change would appear always to be intimately connected with, or to bear some relation to, the dykes of trap which traverse the conglomerate rock. Several instances of this kind were noticed upon the northerly side of Keweenaw point, either directly upon or near to the coast, as also at several other places in the interior, westerly from Keweenaw point. A vein, which may without doubt be referred to as one of this character, (though in consequence of intervening bays and lakes between it and the ranges to the south, its connection with the main range has not been seen,) will serve to illustrate the character referred to.

This vein, which reaches the immediate coast of the lake, upon the easterly cape of the bay known to the voyageurs as the Grande Marrais of Keweenaw point, terminates, so far as examinations can be made, in the coarse conglomerate rock. The coast of the lake, for many miles on either side, is made up of abrupt cliffs of a similar rock, the rock as usual, being

Digitized by Google

made up of coarse rolled pebbles of trap, chiefly cemented with calcareous matter, which is usually associated, more or less, with the red oxyd of iron. Immediately south of the coast a heavy dyke of trap traverses the conglomerate, which dyke corresponds in position with line of bearing and dip of the conglomerate rock.

The vein, which, at its termination upon the immediate coast of the lake, has an extreme width of about ten feet, may be traced, in the bed of the lake, in a direction north 5° east, for a distance of several rods, after which, in consequence of the depth of water, it is completely lost. This vein, at the point where it appears upon the coast, may be said to be in a concentrated state, or in a condition analagous to that before described, where the native copper occurs in the condition of bunches and strings, though the condition in which the metallic minerals occur, is essentially different from that in the trap; for, instead of native copper, we have several mixed forms of the green and blue carbonates of copper and copper black, more or less intimately associated with calcareous spar, and in the adjoining rock, and in small ramifying veins, occasional small specks and masses of native copper, weighing from 1 to 8 oz., occur, but these are by no means abundant. No quartz occurs as the veinstone, and none of the ores have been noticed in a crystaline form.

It has already been stated, that these true veins, in traversing the conglomerate, frequently almost lose their character, and it becomes difficult to define their absolute width, or in other words, it would appear as if, at the time of the formation of the veins, the conglomerate had not been perfectly cemented, the result of which would be, that the mineral matter, which, under other circumstances, would constitute a perfect vein, would frequently appear in only an imperfect one, or the mineral which would, under other circumstances, make up the vein itself, may have been injected laterally through the interstices of the rolled masses constituting the conglomerate, in which case the mineral would, in fact, take the place of the ordinary cement, thus simply investing the pebbles of the conglomerate. Now, although at the point under consideration, a wide and remarkably distinct vein is developed, the rock, for many feet on either side, has the interstices between the pebbles filled wholly, or in part, with various mixed and irregular forms of the ores, accompanied by calcareous matter, as before stated, and with occasional specks and small masses of native copper.

Those veins traversing the conglomerate take on a similar character, to a greater or less extent, rather frequently, but the place of the copper is more usually supplied by the siliceous oxyd, and more rarely by the carbonate of zinc, which com-

Digitized by Google

pounds, sometimes may be seen forming a perfect or partial cement to the rock, for considerable distances on either side of the main vein. These ores of zinc, like those of copper, are uniformly amorphous, and almost invariably more or less associated with some form of carbonate of lime, with which they may, under some circumstances, unless closely examined, be confounded.

Although these copper and zinc ores occasionally appear in considerable quantities, in those portions of the veins traversing the conglomerate, they usually embrace or simply encrust portions of the rocky matter; or rather the rocky matter and those ores appear to be coarsely and mechanically mixed. These veins furnish beautiful cabinet specimens of the blue and green carbonates of copper, and more rarely of pyritous copper, together with the other varieties mentioned.

Having already devoted a larger space to the consideration of these veins than had been intended, I will simply add, that in pursuing their course northerly, across the mixed rock and the red sandrock, their mineral character is nearly or quite lost, the veins as before stated, being made up either entirely of calcareous spar or of that material containing very meagre ores of zinc.

The district of country to which these veins have been referred, thus far, only comprises the ranges of hills south of Lake Superior, but veins of a very similar character, and of similar mineral contents, also occur upon Isle Royale. The order and changes in the character of the veins upon Isle Royale is necessarily reversed, or in other words, the southerly point of the vein corresponds to that of the north point in the district south of Lake Superior. The mineral veins of Isle Royale have not been examined with sufficient care to enable me to determine with much certainty, their average width or value. Those examined were mostly narrow, the widest not exceeding eighteen inches, but in these the mineral contents are essentially the same as in those upon the south side of the lake.

Native copper, in very thin plates was occasionally noticed occupying irregularly the joints of the compact greenstone of Isle Royale, but invariably in comparatively small quantities. It should, however, be noticed of Isle Royale, that the veins, so far as examined, are less perfectly developed in their passage across the conglomerate, and that they very rarely contain any traces of zinc.

Upon the north shore of the lake, no attention was given to the subject of mineral veins, but from the character of the geology of that district, it may be inferred that they will also be found in portions of it, and that, where they do occur, they will

Digitized by Google

be uniformly either directly upon or not far from the coast of the lake.

In addition to the *regular* veins already described, irregular veins frequently occur, traversing the whole, or portions, of the outliers of trap, or those knobs which appear to have been elevated singly; and although these veins may without doubt, be referred to the same epoch as the regular veins before described they nevertheless frequently differ considerably in mineral contents.

The limits of the present report will not permit a separate description of these several distinct trap knobs. I will therefore confine my remarks to that already referred to, as occurring upon the south coast of Lake Superior, immediate northwest from Riviere Des Morts, and which forms the promontory known as Presque Isle.

In nearly all those portions of this knob, where the trap, conglomerate and sandstone, are exposed in such a manner as to permit examination, each of the rocks are seen to be traversed by innumerable irregular ramifying veins, which in the sandstones are made up of quartzose and calcareous matter; but many of which, near the junction of the igneous and sedimentary rocks, are metalliferous, and this metalliferous character is more fully developed as the veins are extended into the trap rock.

The metalliferous portions of these veins, rarely exceed three to four inches in width, and they ramify in such a manner that the mineral uniformly occupies situations similar to bunches or strings, at the junction of the ramifications. The minerals contained in the metalliferous portions of the veins, are sulphuret and carbonate of lead, earthy, green carbonate of copper, pyritous iron, and more rarely, pyritous copper. Occasionally there is a quartzose, or mixed quartzose and calcareous veinstone; but more usually the several metallic minerals are blended in a base of rocky matter. The sulphuret of lead is distributed in the form of small cubic crystals, while the other metallic minerals are usually distributed either in irregular masses, or investing portions of the rocky matter. These associations are referred to, as showing the character which these irregular veins assume, rather than from any supposed value which they may possess for practical purposes.

In addition to the minerals referred to, the trap of Presque Isle occasionally contains asbestus, common serpentine and imperfect agates; the two former minerals usually occupying the narrow joints of the rock.

Before referring to the economical considerations connected with the veins which have been described, I will briefly refer to

Digitized by Google

another situation in which the ores of copper have been observed in intimate connection with the trap range of rocks.

The southerly side, or greenstone portion of the trap range, appears to have been elevated in such a manner as to have caused but little disturbance to the sand rock lying between that and the range of simply altered rocks lying still further to the south; but near to the junction of the sandrock and greenstone there is usually a red slate resting against the trap, and which may be said to fill up, in a measure, the irregularities in the ranges of hills. This slate, which is sometimes seen of 100 to 200 feet in thickness, though usually it appears as a mere band, is traversed by irregular and imperfect veins, of what may be denominated a ferruginous steatite, containing placentiform masses of greasy and milkish quartz, that sometimes contain more or less of the ores of copper. The earthy carbonates of copper are also sometimes so intimately connected with these veins of steatitac matter as at first to be scarcely recognized. More rarely, distinct, very thin veins of green carbonate of copper occurs, well characterized, in this red slate, though these veins are never of any great length. The red shale extends, more or less perfectly, along the whole length of the trap range, skirting that range of hills upon the south, but I have not yet been enabled to devote sufficient time to its examination to enable me to determine whether any portions of these veins can be regarded as of practical importance. The examinations which have been made would lead me to look unfavorably upon these veins, and I regard them as having an origin completely distinct from that of the veins which traverse the northerly escarpment of the trap rock.

Having thus considered all the general circumstances under which the several ores of copper, zinc, lead, iron, manganese and silver have been noticed, in connection with the trap rock and the sedimentary rocks, immediately resting upon it, it becomes important to consider haw far inferences may be drawn from these examinations, as to their occurrence in such quantities as to be of practical importance. I have already stated that so far as regards the ores of lead, iron, manganese and silver, I am led to conclude that at none of the points examined do they occur in veins, or otherwise, sufficiently developed to warrant favorable conclusions as to their existence in sufficient quantities to be made available, and from all that is now known of the country, I am led to infer that neither of these, unless it be iron, will be so found.*

The examinations which have thus far been made of those portions of the veins containing ores of zinc, have not been extended sufficiently to enable me to determine with much satis-

*These remarks are intended to apply directly to the trap region. Beds of bog iron ore occur, east from Chocolate river, which probably may at some future day be profitably worked.

Digitized by Google

faction, their extent as a whole. At several points in the veins, these ores are sufficiently abundant to admit of being profitably worked, but I would be unwilling, from an examination of a few points, to attempt to determine the character of the whole.

In considering the practical value of the copper ores of the upper peninsula of Michigan, where we are as yet compelled to judge from our examination, of what may be said to be the simply superficial portions of the veins, we can arrive at no safe conclusions, except by comparison of the district with those districts similarly situated, which have been extensively worked in other portions of the globe. Comparisons of this character, to be really useful, must necessarily be sufficiently minute to enable us to understand the relations which the ores in the districts compared, bear to each other, in all respects, which circumstances renders it necessary that a degree of minute information should be at hand, that is not at all times to be obtained. As the information on hand, with respect to the copper and tin veins of Cornwall, England, is more minute than that of any mineral district known, I propose, in order to avoid confusion, to confine my comparison to this district, simply premising, that however closely the two districts may resemble each other in character, it does not follow, as an axiom, that because the district with which we compare our own has been largely and profitably productive, that of Michigan must necessarily be so too, for it will be seen, as the subject is pursued, that there are not only several points in which it is impossible with our present knowledge of that of Michigan, to institute comparisons, but there are also some points on which there is a considerable degree of discrepancy.

The comparison instituted, in the main, is intended to refer rather to the character and contents of the mineral veins of the two districts than to the geology, although some general reference becomes necessary to the geology of the districts, to render the comparison perfect. The topography of the Cornish district bears a close resemblance to that of Michigan; both districts being marked by their irregular and broken outline, and by the occurrence of more or less frequent, nearly insulated knobs, rising to a considerable height above the elevation of the general ranges.

Although the older rock of Cornwall, or that from which the metalliferous veins of the district may be said to have their origin, is more distinctly granitic than that of the metalliferous region upon Lake Superior, the elements of which the rocks are composed, may be regarded as essentially bearing a very close resemblance; a resemblance, which it is conceived, would have been still more perfect had the granitic rocks of Cornwall been subject to the action of secondary causes similar to those

Digitized by Google

of the region under consideration. The rocks resting upon or against the granitic rocks of Cornwall, consist of clay slates, hornblende rocks, &c., which bear little real anology to the rocks resting directly upon the trap of Lake Superior, but it is conceived that the composition of these upper rocks has little bearing upon the origin of the metalliferous veins, and may be regarded as in a measure unimportant; and however much these rocks may differ, they are traversed alike by the metalliferous veins of the lower rocks in such a manner, that the close resemblance cannot be mistaken.

It is a matter of history that the ores of tin have been, more or less, extensively raised in the mineral district of Cornwall, from the earliest settlement of the Island of Great Britain, but the working of the veins of copper at an early day, does not appear to have been carried on to any very considerable extent. The great importance to which the produce of copper from the Cornish veins, (in a district which, compared with the mineral district of our own state, is of very small dimensions,) has arisen, will be shown from the accompanying table, which I have reduced from the official returns, included in the several years, and which table, it will be seen, shows for a series of years, the average annual amount of copper produced from the ore, the average amount for which it sold, together with the amount per cent of copper contained in the ore, and the average value of the copper, per pound, at the smelting house. This table, which has been drawn with great care, from data that can scarcely lead to incorrect results, will not only serve to show the large aggregate amount of the metal produced, but it also shows, from the low average per cent of metal contained in the ores, (if we had no further knowledge upon the subject, that much capital must be required for, and a large amount of labor applied to the raising and smelting of these ores; a circumstance which should be carefully borne in mind, in all that relates to the mineral district of Michigan.

Digitized by Google

Table showing the average annual produce of the Copper Mines of the County of Cornwall, England, from 1771 *to* 1822.

Years.	Average No. of tons of ore per year.	Av. No. of tons copper produced per year.	Av. amount per year for which sold.	Av. per ct. of copper produced from the ore.	Av. val. of the copper per lb.
					c. m.
1771 to 1775—5 years,	28,749	3,449	$846,283	12	10 9
1776 to 1780 5 "	27,580	3,309	826,609	12	11 1
1781 to 1786 6 "	34,354	4,122	962,380	12	10 4
1796 to 1802 7 "	51,843	5,195	2,125,046	10	18 2
1803 to 1807 5 "	70,923	6,160	3,174,725	8	23
1808 to 1812 5 "	70,434	6,498	2,886,835	9	12 9
1813 to 1817 5 "	82,610	7,272	2,878,723	8 8	17 6
1818 to 1822 5 "	94,391	7,757	3,111,811	8 2	17 9

The general resemblance in the mineral contents of the copper veins of Cornwall and those of Michigan, is, for the most part, very great, though in some respects there is a considerable discrepancy. It should, however, be remarked that some difficulty exists in comparing the mineral veins of Cornwall, where several of them have been worked to depths, varying from 1,000 to 1,500 feet, with those of Michigan, where the examinations are nearly superficial.

In making these deep excavations, not only in the county of Cornwall, but also in the copper districts of Bohemia, Hungary, Silesia, Transylvania, Saxony, &c., (some of the veins in the latter districts having been explored to a depth very considerably greater than those of Cornwall,) an immense mass of facts has been accumulated, with respect to the general formation and mineral character of veins, or lodes of copper, which facts have led to an understanding of many of the contingencies connected with its associations, so universal, that when applied to this mineral, they may be regarded as general laws, that may fairly be inferred to govern, with more or less certainty, all those lodes or veins which have similar geological relations. Though a general consideration of those relations of the veins of other countries, may perhaps be regarded as somewhat foreign to the present report, I deem it more advisable to refer to these general laws in such a manner as to leave the reader to judge, by comparison, the condition in which the ores of Michigan may be fairly inferred to occur, rather than to draw conclusions directly; and in so doing, it will also become necessary to refer to some of the characters of mineral veins, or lodes, in general.

Veins are usually divided into two general orders, viz: "*cotemporaneous veins*, or those which were formed at the same

Digitized by Google

time as the containing rock, and *true veins*, whose formation is supposed to be subsequent to that of the rocks which are contiguous to them." A *true* vein may be defined to be "the mineral contents of a vertical or inclined fissure, nearly straight, and of indefinite length and depth."* The contents of a true vein, as a general rule, differ widely from the character of the rocks which it intersects, though this does not invariably hold good, and the vein also, as a general rule, has well defined walls.

The contents of cotemporaneous veins, bear a much closer resemblance to the rocks which embrace them, and as a general rule, they are shorter, more crooked, and less perfectly defined, than true veins.

The metalliferous veins being contained under the head of true veins, it is to these that the whole of my remarks will be directed.

Metallic veins are the repositories of most of the metals excepting iron, manganese and chrome, which occur more frequently and abundantly in beds than in veins. The thickness of metallic veins varies from a few inches to many feet, and the same vein also varies in thickness in different parts of its course, sometimes contracting to a narrow string of ore, and then expanding again to a width of many feet. The deposits of metal in the veins are as irregular as the widths of them, and so much so as to render the profits of mining proverbially uncertain. Ore is generally found to occupy certain portions of the veins only, differing constantly in extent, whether the length or depth on the course of the vein be considered, or the portion of its width which is filled up by it. No veins occur which are regularly impregnated with metal to any great extent, and when ore is found, it is in what the miners aptly term bunches or shoots, or in interspersed grains and strings, which are more or less connected with, or embraced in, veinstone, that, according to the rock which the veins intersect, will be fluor spar, calcareous spar, quartz, &c. The unproductive parts of veins, even in the most profitable mines, generally far exceed in extent the productive parts, but that mine is considered to be rich which has either frequent or extensive shoots of ore, and the great art of the miner consists in tracing and working the valuable accumulations of the metals, with as little waste of labor and expense on the poorer portions of the veins as possible. "In the mines of Cornwall, the ores of copper and tin commonly occur in detached masses, which are called bunches of ore; and the other parts of the vein, being unproductive, are called *deads*."

The depth to which metallic veins descend is unknown, for

* Carne, on the mineral veins of Cornwall.

Digitized by Google

we believe no instance has occurred of a *considerable vein being worked out in depth*, though it may sink too deep to render the operation of the miner profitable, or it may branch off in a number of strings which are too much intermixed with the rock to be worked to advantage.* Some veins appear to grow wider, while others contract as they descend.

The superficial part of a vein generally contains the ore in a decomposing state, and it frequently happens that the ores in the upper and lower parts of a vein are different; thus, "in Cornwall, blende or sulphuret of zinc often occupies the *uppermost* part of the vein, to which succeeds, tinstone, and at a greater depth, copper pyrites." When a metallic vein, in its descent, passes through different kinds of rock, it is frequently observed that the products of the vein vary in each bed, and when it passes through regularly stratified beds of the same rock, there are particular strata in which the vein is always found most productive. This change in the productiveness of mineral veins, is more particularly noticed at or near to the transition from unstratified to stratified rocks; thus granite, syenite and those rocks which have a graniti-form structure, are frequently noticed to contain metals at or near their junction with stratified formations. On the other hand, the veins which traverse stratified rocks are, as a general law, more metalliferous near such junctions, than in other portions.†

Where a rock is crossed and penetrated by a great number of small veins in every direction, the whole mass is sometimes worked as an ore, and is called by the Germans, a "stockwerke." Where the ore is disseminated in particles through the rock, such rocks are also worked for the ore, when it exists in sufficient quantity.

As a general rule, those metals which are oxydable at ordinary temperatures, or which readily combine with sulphur, *rarely occur in a metallic state*, but are usually found in combination either with sulphur, oxygen or acids. The chief ore of copper raised from the mines of Cornwall, is the yellow sulphuret, though the blue and green carbonates and arseniate are more or less distributed; native copper and the oxyds are also, though more rarely, found.

By a comparison of what has been said upon the character and mineral contents of metallic veins in general, I trust a just view of the real condition in which the ores of copper are invariably found, will have been conveyed, and that, by the aid of this, we will be enabled to examine, without undue expectations, those mineral veins which occur within the limits of our own state. In the main, the resemblance between the character and contents of the copper veins of Cornwall and Michi

* Koenig.
† Lyell. Necker.

Digitized by Google

gan, so far as can be determined, is close; the veinstones, (with the exception of fluor, which I have never observed in the latter,) are essentially the same; but in instituting this comparison, it should be borne in mind that the metallic veins of Cornwall have been in progress of exploration for centuries, and that shafts and galleries have been carried to great depths, while of those of Michigan, simply superficial examinations have as yet been made, and these in a wilderness country, under circumstances of the utmost embarrassment, and attended with the most excessive labor, privation and suffering.

In respect to the character of the ores which occur in the two districts, there are important differences, for while pyritous copper is the most important workable ore, not only in the Cornish mines, but also in those of other portions of our globe, it is comparatively of rare occurrence in the mineral district of upper Michigan; for, as I have already mentioned, the mineral of the trappean portions of the veins in the latter district, is essentially made up of strings, specks and bunches of native copper, with which more or less of the oxyds and carbonates are associated; while those portions of the veins traversing the conglomerate are characterized by the occurrence of the oxyds and carbonates, with occasional metallic and pyritous copper, or the places of all these are supplied by ores of zinc, associated with more or less calcareous matter. In the thin mineral veins of Presque Isle, pyritous copper is more abundant, where it is associated with sulphuret of lead, as before mentioned.

The occurrence of this native copper in the veins, and the manner in which it is associated with the veinstones, in all respects corresponds with the ordinary association of the other forms of ores, in those veins that have been extensively worked in other portions of the globe; but I confess that the preponderance of native to the other forms of copper, was regarded as an unfavorable indication, at least until this had been found to be more or less universal with respect to all the veins. It should, however, be remarked, that in those portions of the veins where the quartz of the vein and the accompanying rock are very compact, the native form is much more common than in those portions where the veinstone and accompanying rock are more or less cellular and soft.

The worked copper veins of Cornwall, are stated by Mr. Carne, to average from three to four feet in width, and to have a length, as yet, undetermined. But few have been traced for a greater distance than one to one and a half miles, and but one has been traced for a distance of three miles.

The veins which I have examined in the mineral district of Michigan, exceed the average of those last mentioned, but the imperfect examinations which have been made, render it diffi-

Digitized by Google

cult to determine this with certainty. I have traced no one vein for a further distance than one mile, and usually for distances considerably less. It was not, however, supposed that these veins terminated at the points where they were left, but the further examinations were abandoned at these points, in consequence of physical difficulties connected with the present condition of the country.

The native copper is frequently free from all foreign matter, and is as completely malleable as the most perfectly refined copper, but it more usually contains disseminated particles of earthy minerals, chiefly quartz. I have not been able to detect the alloy of any other metal, in a single instance.

The fatigues and exposures of the past season, have so far impaired my health, that, as yet, I have been unable to analyze as carefully, as could have been wished, the several ores furnished by the mineral veins of the upper peninsula, but sufficient has been done to show satisfactorily that the copper ores are not only of superior quality, but also that their associations are such as to render them easily reduced. Of those which have been examined, embracing nearly the whole, (and not including the native copper,) the per cent of pure metal ranges from 9.5 to 51.72, and the average may be stated at 21.10. Associated with some of these ores, I have detected a metal, the character of which remains, as yet, undetermined.

Were the analysis of the several ores of copper sufficiently perfected, I should deem it unnecessary to lay them before you at this time, for with what is now known of the district, it is conceived, the result would lead to erroneous, rather than to correct conclusions. The analysis of separate masses of ore, no matter how much care may be taken to select the poor as well as the richer ores, for the examinations, will usually be far from giving the average per cent of what would be the product when reduced to practice. I have, in order to arrive at safe conclusions, not only analyzed, but also assayed many of them, but when we come to consider what constitutes the true value of a vein of copper ore, we will perceive why it is unsafe to judge of the whole by the analysis of small portions.

By reference to the previous statistical table of the product of the copper mines of Cornwall, it will be seen, that the average produce of the ores since 1771, has never exceeded 12 per cent of the metal, and that from 1818 to 1822, it was only 8.2. This shows the aggregate, and it is well known that while many of the productive veins are considerably below this, the largest average per cent of any single vein, in that district, it is believed, has never been over 20 per cent, and it should be borne in mind that this average is taken after the ores have been carefully freed from all the rocky and other impurities, which can be separated by breaking and picking.

Digitized by Google

The value of a vein may be said to depend upon the abundance of the ore, and the ease with which it can be raised and smelted, rather than upon its purity or richness. Upon this point, with respect to our own mineral region, public opinion would perhaps be more in error than upon any other, and most certainly we could hardly look for a mineral district where the character of the ores were more liable to disseminate and keep alive such errors. The occurrence of masses of native metal, either transported or in place, are liable to excite, with those who have not reflected upon the subject, expectations which can never be realized, for while, in truth, the former show nothing but their own bare existence, the latter may be, as is frequently the case, simply imbedded masses, perfectly separated from all other minerals, or they may be associated in a vein where every comparison would lead to unfavorable conclusions, as to the existence of copper, in any considerable quantities. I have frequently noticed very considerable masses of native copper, occupying the joints of compact greenstone, under such circumstances as I conceive, might readily excite in many minds, high expectations, but a little reflection would satisfy the most careless observer of the uselessness of exploring these joints, under the expectation or hope of finding them a valuable repository of the metal. Again, not only native, but also the other ores of copper occur in veins, either so narrow as to render it useless to pursue them, or so associated as to render it probable that exploration would not be attended with success.

While I am fully satisfied that the mineral district of our state will prove a source of eventual and steadily increasing wealth to our people, I cannot fail to have before me the fear that it may prove the ruin of hundreds of adventurers, who will visit it with expectations never to be realized. The true resources have as yet been but little examined or developed, and even under the most favorable circumstances, we cannot expect to see this done but by the most judicious and economical expediture of capital, at those points where the prospects of success are most favorable. It has been said of the Cornish district, in respect to the supposed large aggregate profits, that "a fair estimate of the expenditure and the return from all the mines that have been working for the last twenty or thirty years, if the necessary documents could be obtained from those who are interested in withholding them, would dispel the delusion which prevails on this subject, as well as check that ruinous spirit of gambling adventure which has been productive of so much misery."* And if these remarks will apply to a comparatively small district, which has been explored and extensively worked for centuries, with how much more

* Hawkins on the tin of Cornwall.

Digitized by Google

force must they apply to the mineral district of our own state. I would by no means desire to throw obstacles in the way of those who might wish to engage in the business of mining this ore, at such time as our government may see fit to permit it, but I would simply caution those persons who would engage in this business in the hope of accumulating wealth suddenly and without patient industry and capital, to look closely before the step is taken, which will most certainly end in disappointment and ruin.

The extreme length of what I have denominated the mineral district, (within the limits of Michigan,) may be estimated at a fraction over 135 miles, and it has a width varying from one to six miles; but it must not be imagined that mineral veins occur equally through all portions of it, for sometimes, for many miles together, none have been noticed, and the situation of the country is such as to render it probable they never will be. The range and course of the mineral district has been so far defined as to render it unnecessary to say more upon this subject, to enable such persons as may wish to examine, to pass directly along its complete length.

I have thus far omitted to allude particularly to the large mass of native copper, which has been so long known to exist in the bed of Ontonagon river, lest perhaps this isolated mass might be confounded with the products of the veins of the mineral district. That this mass has once occupied a place in some of these veins is quite certain, but it is now perfectly separated from its original connection, and appears simply as a loose transported bowlder.

The attention of the earliest travelers was called to this mass of metallic copper by the natives of the country, and it has been repeatedly described by those who have visited it. The mass now lies in the bed of the westerly fork of the Ontonagon river, at a distance which may be estimated at 26 miles, by the stream, from its mouth. The rugged character of the country is such, that it is but rarely visited, in proof of which I may state, that upon my visit to it, during the last year, I found broken chisels, where I had left them on a previous visit, nine years before, and even a mass of the copper, which at that time had been partially detached, but which, for the want of sufficient implements, I was compelled to abandon, was found, after that interval, in precisely the same situation in which it had been left.

The copper in this bowlder, is associated with rocky matter, which, in all respects, resembles that associated with that metal in some portions of the veins before described, the rocky matter being bound together by innumerable strings of metal; but a very considerable proportion of the whole is copper, in

Digitized by Google

a state of purity. The weight of copper is estimated at from three to four tons.

While the mass of native copper upon Ontonagon river cannot fail to excite much interest, from its great size and purity, it must be borne in mind, that it is a perfectly isolated mass, having no connection whatever with any other, nor does the character of the country lead to the inference that veins of the metal occur in the immediate vicinity, though, as before stated, the mineral district crosses the country at a distance of but a few miles.

The occurrence of carnelian, chalcedony, agate and amethystine quartz, in the amygdaloidal portion of the trap, has already been noticed, and these minerals are considerably abundant. They frequently possess very great beauty and perfection, and when ground and polished, they may be used for all the purposes to which those minerals are usually applied.

Minerals of the Upper or Grey Sandstone.

Though the upper sandrock is largely exposed along that portion of the lake coast known as the Pictured rocks, rising to a very considerable height in precipitous cliffs, there have, nevertheless, been no minerals noticed in connection with it, excepting iron pyrites. Along a portion of the distance, however, the rock of the cliffs is frequently colored by broad vertical bands, having a variety of tints, (which have given name to this portion of the coast,) and these bands have been, by some travelers, supposed to indicate the existence of important minerals in the rock; but the coloring matter of these bands is merely superficial. It chiefly consists of the oxyd and carbonate of iron, with occasional feint traces of carbonate of copper, both having been deposited from waters while trickling down the cliffs, the same having previously percolated the rock.

No mineral veins have been noticed in connection with this rock.

SOIL AND TIMBER OF THE UPPER PENINSULA.

The impressions which have gone abroad with respect to the character of this region for purposes of agriculture, are, in many respects, exceedingly erroneous, for which reason, I am the more solicitous to call attention to the true character of the country, as it regards the natural productions of its soil and its capabilities for cultivation. It has generally been supposed that the whole country is wild and sterile in the extreme,

Digitized by Google

and that, both from its high northern latitude and the rugged and broken character of its surface, it could never admit of the successful application of agriculture. This impression is, in great part, a mistaken one; for, while much of the country is, as has been supposed, extremely rugged, often presenting a rocky and sterile surface, and is besides exposed to the long and bleak winters of a high northern latitude, and to the cold winds of a vast and boisterous lake, yet, as I have already shown, a large part of the upper peninsula is far from presenting a rough and mountainous aspect; and much of the interior, at some distance from the lake shore, presents situations that are not only sheltered from the severity of the winter, but in soil and timber are wholly of a different character from what has been represented.

Much of the wrong impression which has been received, with regard to the timber and agricultural character of the country alluded to, has, no doubt, arisen from the circumstance that a judgment has been formed of the whole district of country, from the appearance of that part of it which lies more immediately upon the lake shore; and in fact, were we to form our estimate of the whole, from that only which is seen by the voyageur, in coasting along the shore, it would scarcely be possible to form any other than a very unfavorable opinion of the value of the country, in an agricultural point of view. Along that portion of the district which lies upon Lake Superior, about one-third of the entire coast, westwardly from the Ste Marie, is generally low and sandy, and thickly timbered with evergreens and white birch, which give to it a somewhat gloomy and forbidding aspect. Still further westerly, and extending to the extremely westerly boundary of our state, the coast presents little else than an almost unbroken succession of rocks, bare, and worn by the fury of the lake, and the country, as seen from the water, appears to be occupied by an almost countless succession of irregular knobs, either nearly destitute of timber, or producing only a few stinted yellow pines and firs, or a growth of worthless poplars; while the southern shores of the upper peninsula, upon Lake Michigan and Green Bay, though differing in character, present a scarcely less forbidding aspect, in general, when viewed from the lake. But these unfavorable impressions are almost wholly, or in great part, removed when we penetrate into the interior, beyond these local influencing causes, and become acquainted with the real condition and character of the districts described.

The general aspect of the surface, over the whole of the extensive district under consideration, has been already laid before you, under the head of "topography of the upper peninsula." It may be remarked, in general, that sand is by far the predominating soil throughout the entire district. A soil of this des-

Digitized by Google

cription prevails over the north-easterly or sandstone portion of the upper peninsula. This district which, as has been already described, consists of extensive level plateaus or steppes, with scarcely sufficient irregularities of surface to prevent the formation of numerous marshes, may be said to be timbered, in the largest proportion, with the several varieties of evergreens, among which hemlock, cedar and firs greatly abound. Considerable Norway or pitch pine is interspersed, with occasionally large white pines, though in limited quantity. This region, nevertheless, comprehends many extensive tracts of the sugar maple, lying in body, and these trees are frequently of large size. Several species of oaks are also occasionally met with. Upon the whole, much of this portion of the peninsula is better adapted to the wants of settlers for agricultural purposes than might, at first view, be supposed, and may be safely relied upon as capable of producing those crops which are of the most importance to the settler. Wheat, in small quantity, is said to have been raised upon Grand Island, in a spot exposed to the utmost rigor of that northern climate, and some species of Indian corn may, no doubt, be successfully cultivated in the most sheltered situations.

The south-easterly portion of the upper peninsula, embracing the lower limestone district, has a soil more nearly approaching to gravelly, and the pebbles composing which are chiefly derived from the northerly outcropping edges of the limerocks. This soil, in consequence, contains much more calcareous matter than that above described, which adds greatly to its fertility. Clays occur to a very limited extent, and clay soils may be said to be in general, rare throughout the district under consideration. Beach and sugar maple are abundant throughout the portion of the district described, mixed with hemlock and birch.

The hilly district, referred to as embracing the whole of that portion of the upper peninsula which lies west of the mouth of Chocolate river, though broken by ranges of knobby and often barren hills, is very far from being wholly or even generally sterile; for the broad and gently undulating valleys, described as occupying the intervening spaces between these ranges of rocky knobs, have in general a soil of dark, rich and deep loam, and in many places are covered with large bodies of sugar maples of unusual size. With this timber is frequently intermixed oaks and large hemlocks, and extensive bodies of the latter timber occur, together with occasional pines. The streams of this district, where they wind through the bottom lands, between the ranges of hills which inclose the valleys, are frequently densely wooded with all the varieties of hard wood timber, and their banks exhibit deep alluvial loams, which, when once brought under proper cultivation, will be unexcelled for fertility even by the rich plains of our southern peninsula.

Digitized by Google

These loams were sometimes observed to be underlaid by a red clay. As a whole, the soils of the hilly portion of the upper peninsula, may be said to be generally superior to those of the extensive easterly portion of the peninsula, and marshes are of a less frequent occurrence.

For purposes of lumber, the upper peninsula of our state cannot be said to hold out such inducements as, from its situation, might be imagined. White pine, though sometimes met with in considerable quantity, was not in any instance observed to have obtained to more than medium size, and is not generally abundant. The Norway pine is found in much greater abundance and of fair size, but this species of pine is of comparatively little value, as an article of lumber.

Furs, Fish and Harbors of Lake Superior.

In the general view I have attempted to give of the character and resources of that portion of our state bordering on Lake Superior, full justice cannot be done to the subject without adverting, however briefly, to the fur and fish trade of that upper country.

It is well known that the American fur company has for a long series of years, occupied posts, at convenient points upon the lake, as well as throughout the vast territory of the north-west, for the trade with the natives in the furs of the country. Since the year 1835, the general depot of the north-west trade in furs, has been established at La Pointe, one of the Apostles' Islands, near the western boundary line of upper Michigan, and in addition to this, other posts, of a more temporary and minor character, have from time to time, been occupied at various points in the same region. These all formed parts, or, as it were, links of that extended and connected chain, with which this company had been enabled to bind to its interests such an immense extent of territory, and to draw into its storehouses those treasures, in furs, with which this whole region originally abounded. The character of the company, its immense resources, the perfect system that characterized its operations, as well as its distinguished success, are so well known, and have so often been adverted to by travelers and historians, that I allude to the subject here only for the sake of exhibiting more perfectly the present condition of upper Michigan, and to show what is the extent of the inducements held out to individual enterprize in that region. Nearly the whole of this trade is now, as it has been for a series of years, in the hands of the company referred to, and it has been secured to them by a course of judicious management, as well as by a large command of capital, and so powerful continues to be the influence exerted by this company, as to leave little chance of

Digitized by Google

success to individual opposition, and the trade must continue to flow, mainly in its present channel.

The trade in furs is, however, very far from being of that importance which it was formerly, for the amount of furs has for many years past, been constantly diminishing, as the country becomes exhausted of the game, and so rapid has been the falling off, that at the present time, the amount of furs packed by the company, *at this station*, is scarcely half that which it was five years ago. At the same time, many important changes have been introduced by the company in the manner of conducting the traffic; the system formerly pursued, of granting credits to the natives on goods, sold at extravagant prices, a course not only unjust in itself, but destructive to habits of industry in the natives, has been entirely abandoned; goods are now sold at moderate prices, anticipating only reasonable profits, and an equally fair compensation is allowed for the furs. The company has, furthermore, entered fully into the measures of the government to prohibit the introduction of ardent spirits into the Indian country, and none is now employed in the trade; thus cutting off one of the chiefest sources of misery to the Indian population. I could not fail to notice that, since my last visit to the country, in 1832, the moral and social condition of the Indian population has greatly improved. This is owing, in great part, to the honorable and active measures adopted by the company, by which the means of subsistence among the Indians has been much increased, many evils that formerly existed have been removed, and an entire change has been brought about in their condition, and also to the exertions of the several very excellent and worthy missionaries, who have not only both by precept and example, been the means of introducing among them the meliorating influences of christianity, but have laboriously devoted their life to this "work and labor of love."

The American fur company also, at an early day, turned its attention to the fish of Lake Superior, and they have since engaged largely in the business of fishing. Many half-breeds and Indians are employed in the business, and this has also operated favorably upon the natives, and no doubt contributed largely to the improvement observable in their condition. Fair, if not high, wages are paid the Indians, which operates as a stimulus to industry, nor can we award too high praise to the equitable course pursued by the company in this matter.

Lake Superior abounds in trout, white fish and Siskowit,* the two former of which are larger and better flavored than any that are taken in the more southern waters, and the latter fish has been rarely taken at any other station on the lakes;

* An undescribed species of the genus Salmo.

Digitized by Google

the consequence of which facts is, that the barrels of this company sell in the market at a higher rate than those of the fisheries farther south; but, at the same time, great disadvantage results to the company from the necessity of keeping vessels constantly upon the lake, for the express purpose of the fish trade, thus greatly increasing the expenses and risks attending the business.

During the past season minor companies have been formed and have commenced the business of fishing upon this lake. Two vessels have been hauled around the rapids at the Saut, for that purpose, and as the fish are abundant, there is reasonable prospect that the fishing trade will eventually prove of great importance.

But cut off as Lake Superior is, from direct communication with the lower lakes, by an impassable rapid, this trade must continue to be carried on under great disadvantages, nor can the other resources of the upper country be fully developed, so long as this barrier exists. The construction of the Saut Ste Marie canal, which has been long projected, but the necessity for which seems to be not yet fully appreciated, would remove this obstacle to the growing importance of that great region; and when this shall have been done, we may expect to see all the resources of our upper peninsula fully appreciated and made available.

Directly connected with this subject, is that of the *harbors* on the southern shore of Lake Superior; for while such a field for enterprize is opened in that region, it is of essential importance to know what are the facilities it affords for the safe navigation of the lake. Six vessels are already navigating its waters, in the prosecution of the fur and fish trade, and although hitherto, but few harbors have been known to exist, which may be sought as places of refuge, the extreme breadth of the lake does not fail to afford an extraordinary facility in its navigation, by allowing a great extent of sea room, and thus enabling vessels, in case of storm, to "run before the wind."

The harbor afforded by the group of Apostles' Islands, and which is taken advantage of by the American fur company at its present station, is deep and completely "land-locked," and for safety and convenience could not be excelled. The same may be said of the natural harbor afforded by Grand Island and the neighboring shore. Both these harbors have long been known and appreciated, and more convenient and safe retreats could not be wished for vessels driven by stress of weather to "make a port;" nor could harbors be desired affording greater conveniences for permanent stations.

I was enabled, during the past season, to effect a partial tri-

Digitized by Google

angular survey of several points upon the coast, which seemed to promise advantages as harbors for vessels; and the depths of the water were uniformly taken, also, at the mouths of streams. The result shows that, although the number of places offering advantages for secure harbors is somewhat limited along a part of the coast, yet that portion of the coast of our state lying upon Lake Superior, may be said to hold out as great facilities, in this respect as any equal extent of coast upon the lakes. It might be supposed that Keweenaw point, from its extreme projection northerly, as well as from the "rock-bound" character of its shores, would serve to add to the dangers of the navigation, but along this rocky coast are found occasional inlets into large bays, stretching behind the extreme outer barrier of rock, and these are almost uniformly deep and completely sheltered, and at some future time, may, with little or no expense, be converted into a series of complete and permanent harbors. One of these bays or inlets, distinguished on the map as Copper Harbor, was surveyed by a series of triangulations and soundings, and was found to afford a bay, convenient for anchorage, about two and a half miles in length, stretching parallel to the coast, and having a depth of from five to seven fathoms, and the entrance to which has an uninterupted breadth of three quarters of a mile, with a mean depth over the bar of twenty feet, and a maximum depth of thirty feet. These harbors, from their location with respect to the mineral district of the upper peninsula, as well as from the ease of access they will allow to vessels which are exposed "off the point," must eventually become of very great importance.

A natural harbor, of similar form to that above described, occurs upon a part of the coast east from the Pictured rocks, and in which the place of the cliffs of rock is supplied by cliffs or spits of sand. The bay here formed, behind the outer bar of sand and gravel, has a length of two miles, with an average depth exceeding six fathoms, and the water deepens so rapidly from the shore, that in most parts of it a vessel of the largest draught may approach so closely to the beach as that a landing might be effected without aid from the boats. The entrance into this bay has a width of three-fourths of a mile, but a bar of sand stretches across it, which would, at times, in its present condition, render the passage into the harbor dangerous, for the average depth of water over this bar does not exceed six feet, though there is a depth in the immediate channel, which is comparatively narrow, of ten feet.

Safe anchorage for vessels may also be found in Keweenaw bay, a deep expanse of water, on the easterly side of Keweenaw point, and which stretches for many miles inland.

Digitized by Google

PROGRESS AND CONDITION OF THE SURVEY, &c.

Notwithstanding the very many physical difficulties by which the geological survey of the upper peninsula of our state is surrounded, we have, nevertheless, been enabled to accomplish a much larger amount of the work than reasonably could have been hoped; but there still remains much to be done, before its geology and mineralogy can be fairly understood. Comparatively little has heretofore been known of the range and extent of the several rock formations, and, while the labor of the past season has shown the most interesting of these to have a much larger area than we had previously been led to infer; it has also shown, that the amount of work required, to enable us fairly to understand the geology and mineralogy of that interesting region, was considerably more than we had reason to look for.

The reports of the several assistants, will exhibit to you the progress that has been made, during the past season, in the surveys of the southern peninsula. Messrs. B. Hubbard and C. C. Douglass were engaged with me, during the early part of the season, in the upper peninsula; after which, they returned to carry forward the gelogical and topographical surveys of the lower peninsula. I was also accompanied, during a small portion of the season, by Mr. Frederick Hubbard, who acted as special assistant, and who has embodied a small part of his numerous observations in the form of a report, which is hereto appended.

The survey of the lower peninsula is mainly completed, but there are some few spaces, both in the geological and topographical portions of the work, which require to be filled up before the results can be fully laid before the public.

The drafting of the topographical portion of the survey, has advanced steadily towards completion, and the several county maps are in progress of publication, in conformity to your instructions.

While we had hoped to have been able to bring the survey to a close within the time originally contemplated, from the above statement of the progress and condition of the work, it will be seen, that some further time will be necessary for its final completion; but while this time will be essential to reach the object sought to be attained by our state, no farther appropriation will be necessary for that purpose.

In closing this report, I feel it a pleasure to refer to the very many acts of hospitality and kindness which have been extended to us by the citizens of Mackinac, Saut de Ste Marie, and

Digitized by Google

La Pointe. By the aids received at these several places, we have been enabled to accomplish much that otherwise could not have been done, while we have, at the same time, received much that has ministered to our comfort.

To the agents of the American fur company in Lake Supepior, I feel very deeply indebted; for, through their polite attentions, I have been enabled to examine districts of country which otherwise could not have been reached, and to them and the several mission families, are we indebted for all that it was within their power to do, to aid us in our laborious duties, or to render our situation comfortable.

DOUGLASS HOUGHTON,
State Geologist.

—

Report of Frederick Hubbard, Special Assistant.

Utica, N. Y., November 20, 1840.

To Douglass Houghton, *State Geologist:*

Dear Sir—I submit to you, the results of a portion of the observations for the determination of latitudes, magnetic variations, &c., made under your direction, during the recent expedition of the state geological corps to the upper peninsula and southern shore of Lake Superior.

The subject of latitudes was made a matter of particular attention, no regular survey ever having been made by the general government of that part of the lake lying within the boundary of our state. By means of instruments, with which the expedition was furnished, the positions of the most prominent points of the coast have been fixed by celestial observations, and with sufficient care to furnish, connected with the running meander, an accurate outline. Unfortunately, we were not furnished with the proper instruments for the determination of longitudes. This problem, always one of great difficulty, for our purpose, would have required a long series of the most careful observations, with the most delicate chronometers, and a greater devotion of time, than the circumstances of the expedition allowed. The ordinary lunar method, as practiced by navigators, is not susceptible of sufficient accuracy to be of service in a case of nicety.

Several rude attempts were made, however, with such means as we possessed, using a similar method, to fix the longitudes of a few points; but I do not place sufficient confidence in the results to deem it of importance to lay them before you.

The latitudes in the following table were mostly obtained by measured altitudes of the sun, Jupiter and the polar star.

Digitized by Google

Table of Latitudes.

Ste Marie Riviere.	
W. side Drummond Island, (encam'pt, May 27,)	45° 58′ 26″ N
E. side St. Joseph Island, May 28,)	46° 16′ 45″
Pt. aux Pins, Little Lake George,	46° 32′ 29″
Saut de Ste Marie, (head of rapids,	46° 31′ 8″
Lake Superior.	
White fish point,	46° 45′ 18″
Grand Marrais harbor,	46° 40′ 5″
Mouth of Train river,	46° 25′ 34″
Mouth of Chocolate river,	46° 29′ 33″
Mouth La Riviere des Morts,	46° 35′ 4″
Mouth Riviere Bay du Gres,	47° 21′ 36″
Rock harbor, extremity of Keweenaw point,	47° 24′ 32″
Mouth of Ontonagon river,	46° 57′ 5″
Mouth of Montreal river,	46° 41′ 19″
Village of La Pointe, Madaline Island,	46° 44′ 31″

Variation of the compass.—The results, in the subjoined table, were deduced from a comparison of the observed magnetic azimuth of the sun with his true azimuth, as calculated for the measured altitude and place of observation. This method is one of great accuracy, and is almost the only one upon which dependence can be placed, for results which shall not contain an error of more than two or three minutes, due to inaccuracy of observation. The angles were measuered with a theodolite, containing a needle of great delicacy.

A small correction to the table is necessary, on account of the diurnal variation. This may amount to some 8′ or 10′ and possibly may be greater in some instances, when the observations were made during the warmest seasons. As I have not the results of any experiments on this subject, now before me, I have thought proper to insert the date of each observation, and the hour of the day, that the correction may be made when the date can be obtained, with reference also to the metrological table kept during the survey.

By platting these variations upon the map of the coast, it will appear that there is a constant increase in the amount of deflection in passing westward, and at the same time that *the increment is not in proportion to the westing* but is in a decreasing ratio, the distance between the lines, connecting the points of the same variations, being greater as we recede from the line where the direction of the needle is due north.

From the observations in Riviere Ste Marie, it appears that the line of no variation passes through that strait, crossing

Digitized by Google

Drummond Island near its western, and St. Joseph through its central or eastern part, with a course about north by west.

The determination of its exact position is a matter of considerable importance, and I regret that circumstances did not allow us, when in that vicinity, to spend more time in the investigation of this interesting subject. The tracing of its supposed irregularities, and the ascertaining of the laws which govern its changes, have for many years attracted the attention of the scientific world.

By marking upon the map the points of 1, 2, 3, &c., degrees of variation, and drawing through them lines parallel to the line of no variation, it will be perceived that there are, in a few cases, important deviations from the general regularity in which the deflections are found to increase. These differences are by far too great to be attributed either to errors in observation, to diurnal variation, or to the effect of atmospheric disturbing causes. I know not what influence the general topography of a country may have upon the directions of the magnetic needle, but it appears highly probable that something may be due to the outline of coast, to the unequal distribution of land and water, and to the influence of an open extent of sea, on the one hand, and of a mountain range upon the other. It might be suspected that these irregularities were the result of local attraction of metallic veins, or of some unknown disturbances in the more immediate vicinity, did they not always occur where they seem to have an obvious connection with the circumstances I have mentioned. In all these cases there is a deflection of the needle towards the open lake, tending, when the land lies to the west of the place of observation to increase the amount of easterly variations, and the contrary. Thus we find, about the Riviere des Morts, where the trend of the shore is northerly, at the several points to the east of the Keweenaw peninsula, and at the village of La Pointe, lying to the eastward of a high range of hills upon the mainland, a too great deflection towards the east, as if the needle were actually affected by some repulsive influence existing in the land, or a contrary principle, in the water. One or two instances occur, where the attraction is to the west apparently from a similar cause.

Whether this is the true explanation of the difficulty, I will not pretend to decide. The subject is one that merits investigation, as having some bearing upon the science of terrestial magnetism, many of whose principles are as yet enveloped in mystery.

Digitized by Google

Table of magnetic variations.

				Riviere de Ste Marie.	
May 27.	4 h.	16 m.	P. M.	West side Drummond Island,	0° 9′ E.
20.	8	30	A. M.	Small Island in Montreal channel,	0° 12′
30.	9	16	"	Saut de Ste Marie,	1° 25′
				Lake Superior.	
June 8.	5	15	P. M.	Grand Marrias harbor,	3° 29′
13.	6	46	"	Mouth of Miner's river,	3° 39′
16.	9	11	A. M.	Shore, half mile west Chocolate river,	5° 36′
18.	8	00	"	Mouth of Carp river,	5° 32′
23.	8	00	"	Mouth of Pine river,	5° 38′
27.	8	10	"	Bay on south side Keweenaw point, (at mouth first stream north Portage river,)	5° 37′
30.	5	40	P. M.	Mouth Riviere Bay du Gres,	5° 24′
July 13.	4	40	"	Mouth of Ontonagan river,	6° 33′
16.	4	30	"	Mouth of Montreal river,	7° 43′
18.	5	40	"	La Pointe,	8° 33′
31.	9	33	A. M.	Parisien Island,	1° 11′

Accompanying this you will receive a map of the harbor of Grand Marrais and of Copper harbor, surveyed by your direction, while the geological corps were encamped at those places. That of Grand Marrais is made, exhibiting only the general outline, a few points being fixed by triangulation, and soundings taken upon the bar at the entrance. Of Copper harbor, a more thorough survey was made; as complete as the limited time of our stay would permit. The outline of shore, positions of reefs, &c., were accurately determined by a system of triangulations, and soundings made across the entrance, and throughout the interior. A mere glance at the map is sufficient to show how little is left for art to do, to render this harbor one of the most secure places of refuge from storms, to be found in any part of the lake.

Respectfully, yours,

F. HUBBARD.

Digitized by Google

Report of C. C. Douglass, Assistant Geologist.

Detroit, January 4, 1841.

To DOUGLASS HOUGHTON, *State Geologist:*

SIR—In conformity with your instructions, I have the honor to report, that the examinations, assigned me to be performed in the northern portion of the southern peninsula, have been as nearly completed as circumstances would permit. The duties performed under your immediate directions, in the region of Lake Superior, delayed the commencement of this work until the season was so far advanced as hardly to allow sufficient time for the completion of the unfinished work in this portion of the state.

In prosecuting the examinations in this district, I have made collections of duplicate specimens of all of the rocks, together with their contained minerals and characteristic fossils, all of which are deposited, according to instructions, in the geological depot at Detroit, together with a transcript of my field notes.

Previous to making these examinations, it had frequently been reported to me that coal had been found by the Indians and traders in the high lands lying east from the Traverse bays of Lake Michigan. These reports were soon shown to be without foundation, for the reason that the whole of the rocks of this district, lie below those of the coal formation.

Remarks on the general character of the

NORTHERN PORTION OF THE LOWER PENINSULA.

The country north of township nineteen north, and *east* of the meridian, is, on the whole, but ill adapted to the purpose of agriculture, being chiefly composed of sandy ridges, with intervening swales, and cedar swamps; many of the latter, however, are merely tracts of moist ground, covered with so dense a growth of white cedar as to be rendered almost impenetrable. The country rises so gradually towards the meridian of the state, as to leave it generally flat and wet; but were the country cleared of its timber, and the water courses freed from flood wood, much of the country would be rendered dry, arable land.

A large portion of the immediate shore of the lake, is low land, either entirely or approaching to swamp.

High land was noticed lying at some distance back from the lake shore, between Presque Isle and the Cheboygan river, which belongs to, and forms a part of, the chain of high land that appears on Lake Michigan, between Point Wabashance and Little Traverse bay.

Digitized by Google

The greater part of the country, after passing west of the meridian, is of a character very different from that just described, in point of soil, face of country, climate, &c.

From old Fort Mackinac to the Manistee river, the land immediately upon the lake shore, and not unfrequently extending back for many miles, is considerably elevated, and occasionally rises, very abruptly, to the height of from one to three or four hundred feet. The country, (more particularly the northern portion,) continues to rise as we proceed into the interior, until it attains an elevation equal to, if not exceeding any other part of the peninsula.

This is more particularly the case in the rear of the Traverse bays, where this elevation continues for many miles into the interior, giving to the landscape a very picturesque appearance when viewed from some of the small lakes, which abound in this, as well as in the more southern portion of the state.

The tract of country under consideration, is based on limestones, sandstones and shales, which are covered, excepting at a few points, with a deposit of red clay and sand, varying in thickness from a few inches to more than four hundred feet.

The interior of the northern part of the peninsula, west of the meridian, is generally more rolling than that on the east. It is interspersed with some extensive cedar swamps and marshes, on the alluvial lands, and in the vicinity of the heads of the streams, and some of the lakes. The upland is generally rolling, has a soil of sand and clay loam, and is clad with evergreen timber, intermixed with tracts of beech and maple, varying in extent from a few acres to several townships.

Some of the most extensive of these tracts are in the vicinity of the Cheboygan and Tahweegan rivers, their lakes and tributary streams. There are also large tracts of beech and maple timber lying between the head of Grand Traverse bay, and the Manistee and Muskegon rivers.

The elevated portion of land on the shore of Lake Michigan, known as the "Sleeping Bear," as well as the Manitou islands, which, when viewed from a distance, have the appearance of sand, are found to be composed, (excepting the recent sand dunes,) of alternating layers of highly marly clay and sand. The clay is of a deep red color, and in many places its strata are much contorted.

The hilly region to which allusions have been made, is mostly heavily timbered with beech, maple, bass, oak, ash, elm, birch, &c., interspersed with tracts of hemlock and pine, and with an occasional cedar swamp. In the vicinity of Grand Traverse bay, this character of country extends into the interior for many miles bordering on a series of small and beautiful lakes, which vary in length from two to eighteen miles, and

Digitized by Google

are in general free from marsh and swamp. This country, as also that in the interior from Little Traverse bay, is well adapted to the purposes of agriculture.

Passing south of this rolling district, the country becomes less elevated, and more variable, the soil assuming a more sandy character, and being generally clad with evergreen timber. There are, however, exceptions to this, in some fine tracts of beech and maple, near the lake coast, also in the vicinity of some of the streams in the interior.

It is nevertheless true that there are many extensive swamps and marshes in this part of the peninsula; but it is to be doubted whether, upon the whole, they exceed in quantity or extent, those of the more southern part of the state. In point of soil and timber this portion of the state is not inferior to the more southern, and such are the advantages it offers to the settler, that the day is not distant when it will be sought as a place of residence by the agriculturist. The beauty of its lakes and streams is not any where surpassed. Such is the transparency of their waters as to permit objects to be distinctly seen at the depth of more than thirty feet.

The small lakes abound in the finest of Mackinac trout, whitefish, sturgeon, pike, bass, sun-fish, &c. The transparency of the water is so great, that the Indians are accustomed to spear fish where the depth exceeds thirty feet.

That part of the peninsula situated north of Grand river, is usually regarded by many of the inhabitants of the more southern part of our state, as being either an impenetrable swamp or a sandy barren waste, and as possessing too rigorous a climate to admit of its successful application to the purposes of agriculture.

This is an erroneous opinion, and one which will most certainly be corrected as the facts with regard to this part of our state, come more fully to be known. The inhabitants of Flat, Rouge, Maskego and White rivers, and the Ottawa Indians, living on the Grand and Little Traverse bays, and on the Manistee river, have extensive cultivated fields, which uniformly produce abundant crops.

The country on Flat and Rogue rivers is generally rolling, interspersed with level and knobby tracts, but none is so rough as to prevent its being successfully cultivated. The timber in the vicinity of the streams consists of black, white and burr oak, which is scattering, and forms what is denominated openings and plains; small tracts of pine barrens, beech, maple and oak lands interspersed with tracts of white pine.

Settlements are rapidly advancing in this part of our state, and much of the land under cultivation, produces excellent

Digitized by Google

crops of wheat, oats, corn, potatoes, &c., and so far as experience has been brought to the test, is not far inferior to, or more subject to early frosts in the fall than the more southern counties in the state.

The soil varies from a light sand to a stiff clay loam.

The country on the Maskego is rolling, and may be considered as divided into beech and maple land, pine lands, pine barrens, oak openings, plains and prairies. Small tracts of the latter are situated near the forks of the river, about forty-five miles from its mouth, and between thirty and thirty-five miles north of the rapids of Grand river. Crops of corn, oats, wheat, &c., were here as flourishing as those of the more southern part of the state. Several families are settled on the prairies and along the valley of the stream. They have two saw-mills in operation, one at the forks of the Maskego river, and the other on a small stream five miles below.

The soil of the prairies and openings is sandy, while that of the beech and maple lands is a sand and clay loam.

The Indians of Grand and Little Traverse bays and vicinity, also obtain good crops of corn, potatoes, squashes, &c. Some of the most intelligent Indians informed me that their crops have never been known to fail entirely, and that they were seldom injured by frosts in the fall or spring. They also have many apple trees which produce fruit in considerable quantities.

This soil is strictly a "warm one," and exposed as the whole country bordering on Lake Michigan is to the influence of the southern winds, during the summer, and parts of the spring and fall, it seldom fails to be productive.

GENERAL GEOLOGY.

For convenience of description, I will arrange the several rock formations in groups, and beginning with those that occupy the highest place in the series, descend to the lowest, or oldest rocks. Owing to the great accumulation of superficial materials, which has prevented perfect accuracy from being attained, these divisions may be liable to modification upon subsequent and more minute investigations.

Digitized by Google

Rocks of Lake Michigan.

	Townships.		
1		Tertiary and superficial materials.	1. Bowlders of granite, &c. 2. Clay, sand, &c.
2	T. 16, N.	Manistee limestone.	
3	" 31–32 "	Shales.	1. Light blue argillaceous. 2. Black, containing pyrites.
4	" 33 "	Corniferous limestone.	Containing beds of hornstone.
5	" 34 "	Little traverse bay limestone.	Beds of limestone, intermixed with clay & chert.
6	" 34 "	Black bituminous limestone.	Composed of congeries of shells.
7	" " "	Blue limestone, in thick regular layers.	
8		Mackinac limestone.	Very porous and much shattered.

Rocks as seen forming the coast of Lake Huron.

	Townships.		
1		Alluvium.	1. Beds of rivers. 2. Incrusting springs. 3. Marl, tufa, peat, &c.
2		Tertiary and superficial.	1. Bowlders of granite. 2. Beds of clay and sand, &c.
3	20, 26 N.	Point aux Gres. Limestone.	Light colored arenaceous, containing septarea.
4	27 "	Shale.	Black bituminous, containing pyrites.
5	28 "	Thunder bay limestone.	Beds of limestone and grey clay or shale, containing abundant fossils.
6	30, 31 "	Black bituminous limestone.	Bituminous, composed of congeries of shells.
7	32, 33 "	Blue limestone.	Compact and in thick strata.
8		Mackinac limestone.	Very porous and the upper portion much shattered.

It will be seen, by referring to the above sections of the rocks of lakes Huron and Michigan, that the same rocks, with one or two exceptions, occur on both sides of the state, having the same geological position; also, that they have very nearly

Digitized by Google

parallel and uniform positions. And from these outcrops the rocks would appear to have a bearing nearly north 70° west, and south 70° east, which line of bearing corresponds with the outcrop of the black bituminous slate on the east side of Lake Huron in Upper Canada.

Alluvium.

Under this head may be included all those formations which are the result of causes now in operation. Such as beds of shells and tufaceous marls, deposition of silt at the mouths of streams, disintegration of rock strata, growth of peat, bog ores, &c.

Shell Marl,

Is in general, composed of small fresh water shells, chiefly univalve with occasional bivalve, which multiply most rapidly in shoal ponds or pools of water strongly impregnated with carbonate of lime. For the accumulation of fresh water shells and shell marl, the waters of the streams and small lakes of the northern part of the state, are well adapted. This marl has accumulated in extensive deposits at the outlets and inlets of most of the lakes on the Cheboygan, Tahweegan and Pine rivers. There is also an extensive deposit of marl on the shore of Thunder bay, north of Thunder bay river.

Tufaceous marl is also rapidly accumulating at the rapids of the streams above mentioned, where the deposition takes place in consequence of the water here being much agitated. The carbonate of lime precipitated at these points, is usually in the form of tufa, which readily adheres to whatever it comes in contact with, thus forming balls varying from one to twelve inches in diameter. Most of these balls have a shell as a nucleus.

Tertiary and Bowlders.

Included in this division are alternating beds of red clay and sand which are nearly co-extensive with this part of the state. This formation overlays and rests unconformably upon the lower rocks of the district, and in which respect, it corresponds with the same formation in the more southern part of the state.

It forms the base of most of the high banks of both lakes Huron and Michigan, and is very finely exhibited at the Sleeping Bear, and on the Manitou islands of the latter lake. It also forms the base of most of the high knobs, in the interior of this section of the state. Most of this clay is very unctious and nearly free from grit, but contains lime in sufficient quantity to injure it for the manufacture of brick.

Primary bowlders are very rarely met with on the upland;

Digitized by Google

but those of a small size are very numerous on the shores of the small lakes, where there were also numerous bowlders of limestones seen associated with them.

ROCKS OF LAKE HURON.

Point au Gres Limestone.

This rock is, for the most part, of a light cream color, of a compact structure, and will afford a tolerable building material. It contains numerous fossils. From this point north, on the lake shore, to Sulphur island, rock was seen at intervals, forming the bed of the lake, which rock was referred to the sandstone formation. This space is undoubtedly occupied by sandstones and shales, the equivalent of those on the coast of Lake Huron from Point aux Barques south, to White Rock.

Limestone of a very siliceous character occurs on the Charity and other islands of Saginaw bay, where it was seen in contact with, and overlying, the sandstone, and occupies the same superposition as the limestone at the rapids of Grand river.

Black Shale.

A black bituminous shale was first seen at Sulphur island, and also extending along the shore of the main land, for some distance. It is highly bituminous, burning freely when thrown upon the fire, and contains numerous small nodules of iron pyrites. It may be considered as equivalent to the shales of western New York.

Thunder Bay Limestone.

This limestone occurs at the south cape of Thunder bay, forming an abrupt cliff, which rises directly from the water to the height of twenty feet. It is composed of alternating layers of compact and shaly limestone, and fissile clay slate; the latter of which forms a considerable portion of the cliff, containing nodules of iron pyrites and chert. Most of the rock is of but little value for economical purposes. It contains numerous fossils, among the most characteristic of which, are the Atrypa aspera, and prisca, Delthyrus speciosa, Calymene bufo, Gorgonia, Millepore, Catenipora stellata, Cyathophyllum dianthus, Calamapora spongites, Pentremites pyriformis.

Black Limestone.

This rock is seen cropping out at intervals on the lake coast, from Thunder bay island to Middle island, but it either occurs below the surface of the water or so little elevated above it, after leaving outer Thunder bay island, as to be difficult of examination.

Digitized by Google

Most of this rock is of an inferior character and furnishes a coarse, rough, building material, and is of very little value in an economical point of view. Some portions of it are of a sub-slaty character, highly charged with bituminous, while portions are nearly composed of congries of fossils. It is undoubtedly the animal matter from the fossils that gives to this rock its bituminous character.

Among the most characteristic fossils found in this rock, are the Calymene bufo Rowii and Blumembachii, Atrypa aspera and prisca, Delthyrus speciosa, Calamipora favosa, Orthis, Cyathophyllum ceratites, Orthocera, Calamapora favosa.

Blue Limestone.

Limestone of a light blue color, and very compact, was seen at intervals between Middle island and Forty mile point, forming the bed of the lake, or but slightly elevated above the water. It is regularly stratified and very compact, and contains numerous fossils; among those ascertained were the Atrypa prisca and aspera, Orthis, Euomphaulus carinnatus, Cyathophyllum helianthoides, Flustra.

Mackinac Limestone.

In the vicinity of the Island of Mackinac, the upper portion of this limestone is chiefly made up of broken cemented fragments. The rock is of a light color, and the fragments of which it is composed frequently contain numberless minute cells. These were undoubtedly once filed with spar, which has been washed out of the exposed part of the rock, by the action of water.

Many of the more compact parts of this rock, when first broken, show numerous small veins of spar piercing it in every direction and owing to the porous character of the upper portion of this rock, it affords but a poor building material; while the lower part of the rock is more compact and has marks of regular stratification. This is more clearly exhibited on Round and Bois Blanc island, and where a much better building material can be procured, than any seen on the Island of Mackinac.

Hornstone, striped jasper, imperfect hogtooth spar, calcareous and fluor spar, and some very imperfect fossil remains, are occasionally found imbedded in this rock. The whole exposed portion has the appearance of having been very much shattered by an irregular upheave.

Limestone of a similar character to that above described, was examined on the main land, to the west of Mackinac island, forming the high bluff known as the "Sleeping Rabit;" also forming the bed of the lake west of old Fort Mackinac, and extending westerly as far as point Wabachance.

Digitized by Google

ROCKS OF LAKE MICHIGAN.

Rock has not been found to outcrop in that part of the state north of Grand river, lying between townships seven and fifteen north, and west of the meridian. But were the superincumbent sands and clays removed so as to expose the rocks to view, they would be found to correspond with those passed over in going south-east from the rapids of Grand river to Monroe county, being a succession of sandstones and shales.

Near the Manistee river, in township fifteen north, limestone appears in elevated cliffs; which rock is probably referable to the same series as that of Monguagon, in the south-east part of the state.

Blue and Light Gray Shales.

This shale crops out on Grand Traverse bay, (in township thirty-one north,) forming a cliff of from five to fifteen feet in height, is of a light gray or blue color; most of it highly argilaceous, and is divided into thin laminae, varying in thickness from one-eighth of an inch to two inches. The thin laminated parts of the shale are very friable while the thicker layers are more compact and calcareous.

Minute crystals of spar were seen attached to and filling crevices in the most compact part of this shale. I was unable to detect any fossil remains in the shale.

Black Shale.

This shale forms a series of abrupt cliffs, of from one to twenty feet in height, for the distance of nearly a mile on the coast of Grand Traverse bay (in township thirty-two north,) being four or five miles north from the blue shale before described, and lies below it.

This shale is slightly bituminous, contains numerous nodules and specks of iron pyrites, is very friable, disintegrates rapidly before the action of the waves to which it is exposed, and closely resembles in character, composition and superposition, the shale of Sulphur island of Lake Huron, with which it may be regarded as identical in geological position.

This shale was also examined in the north bank of Pine lake, (in township thirty-three north, range seven west,) where it is but slightly elevated above the water of the lake; contains like the shales before described, numerous nodules and specks of iron pyrites, is slightly bituminous, and is equivalent to the black shales of Lakes Huron and Michigan.

Associated with the shale at this point, are large angular masses of fœted limestone and shale connected together in the same mass; and these masses are frequently traversed by thin veins of pearl spar; the latter also filling the small cavities

Digitized by Google

formed in the rock. The masses of fœted limestone above described, occupy places simply in the lower portions of the shale stratum.

Corniferous Limestone.

The rock to which I have given this name is of a light gray color, regularly stratified in layers varying from one-fourth of an inch to twelve inches in thickness, and is very compact; some portions of it affording a good building material. It contains large quantities of imbedded hornstone, in layers, from one to twelve inches in thickness, and which breaks into small blocks on exposure to the atmosphere. This limestone is destitute of fossils, in that portion which was examined.

Little Traverse Bay Limestones.

These limestones agree in geological position and character, with those of the cliff in Thunder bay, Thunder bay island and Middle island of Lake Huron.

The limestones of Little Traverse bay rise directly from the water, forming abrupt cliffs, varying in height from five to thirty feet, and for the sake of a more minute description, they may be sub-divided, and considered in a descending series, as follows:

		Feet.	Inches.
1.	Blue silicious limestone, much of it very compact, and will afford a good building material,	9	
2.	A confused mass of broken fossils imbedded in clay,		2
3.	Vesiculated chert, colored with iron,	1	
4.	Flaggy limestone separated into layers, varying from one-fourth of an inch to an inch in thickness,	8	
5.	Blue clay containing imbedded semi-crystalline grains of iron pyrites,	8	
6.	Light blue limestone, below the surface of the water; thickness unknown; resembles the limestone of Middle island, Lake Huron,		

Most of the limestones of this bay are of an inferior quality for economical use. They are very much shattered, presenting in that respect a strong resemblance to the sandstones of the southern part of the state. Some portions of the rock on this bay are so shattered, as to have the appearance of a mass of loose blocks. Fossils were found in a very perfect state; among the most characteristic of which are the Atrypa prisca,

Digitized by Google

Productus, Strophomena, Calamapora polymorpha, Cyathophyllum vesiculosum, Isotelus gigas, sarcinata, Ceriopora verrucosa, Catenipora labyrinthica.

Blue Limestone.

This rock was found outcropping at the first point west of Pine river; also, south of the head of Little Traverse bay, and is there of a light blue color. It is elevated a few feet above the water of the lake and stream, where it embraces the black bituminous limestone, next described. The latter occurs here, in two or three thin layers, which are filled with fossils.

The blue limestone, is very compact, in strata varying in thickness from one to two feet. These strata are much warped, as if by irregular uplift, destroying all regularity of dip. It contains numerous fossils, analagous to those of Middle island of Lake Huron.

Black Limestone (Subordinate.)

Embraced in the blue limestones, is found the out thinning edge of the black limestones of Thunder bay island. It is seen in the bay beneath the waters, and between one and two miles south of the head of the bay, in the bed and banks of a small stream, where it consists of several layers, from two to twelve inches in thickness; is highly bituminous and is almost wholly composed of congeries of shells, which undoubtedly give to it its bituminous property. It burns when thrown upon the fire, with a brisk flame, so long as any of the bitumen remains, but the mass is not reduced in size by the burning.

It is the bituminous character of this rock, which has given rise to the reports that coal existed in the vicinity of the Little Traverse bay.

The Indians attach great value to this rock, for its inflammable quality; and upon inquiry being made of them, respecting it, they professed to be entirely ignorant of the existence of any rock of that character, in their region of country.

Deer Licks.

Springs which have their waters slightly saturated with muriate of soda, and the salts of lime and iron, are occasionally to be met with, in that portion of the state under consideration. In character and quality of water, they are equivalent to those which are found in Macomb and St. Clair counties, and cannot be considered as of much practical importance.

Ancient Lake Ridge.

In prosecuting my examinations in the north part of the southern peninsula, portions of ancient lake ridges were met

Digitized by Google

with, which were found to correspond with that whose character was determined by Mr. Hubbard, and described in his report of last year, as occurring in the southern part of the state. No large continuous ridge was met with, through the country examined by me, but rather a series of small ridges, which were found to be composed of water worn pebbles, gravel and sand, not unlike those composing the present lake beach, and having an elevation, as nearly as I was enabled to judge, of one hundred and forty feet above the present water level.

These ridges were found the most fully exhibited on the islands and on the main land bordering the straits of Mackinac, and occur under circumstances that would seem to show that the water of the lakes had subsided gradually, or, (which would produce the same effect,) the land had been gradually elevated.

COLUMBUS C. DOUGLASS,
Assistant Geologist.

Report of B. Hubbard, Assistant Geologist.

Detroit, January 24, 1841.

To Douglass Houghton, *State Geologist:*

Dear Sir—Immediately upon my return from the postion of our state bordering on Lake Superior, where my services as assistant had been required during a large part of the season, I recommenced the detailed surveys in the organized counties of Michigan proper. These were conducted with a more especial view to the determination of the extent and value of the coal district of the peninsula. The counties in which minute examination have been made during the past season, are Barry, Clinton, Shiawassee, Genesee, Lapeer, St. Clair and Macomb; and examinations have been extended generally over other counties previously examined, in part, in order to the more full and satisfactory completion of the duties assigned me.

Maps of the Counties.—The labor of correcting, while in the field, maps of those counties which were assigned to my geological and topographical supervision, has been completed, and the plats are now in the hands of the state topographer, to be prepared for publication. A great mass of information, both of a practical and purely scientific character, and which could not be transferred to the maps, nor be suitably embodied in the annual reports, has been compiled from my field notes, arranged for future reference, and for such use as may be found advisable in the final report on the survey. Particular

Digitized by Google

attention has been devoted towards the full collection of all such details as would give a completeness to the several objects aimed at, in this department of the survey, and I may be permitted to say that no source of information, known to me, has been neglected, which could subserve interests of so important and comprehensive a character.

Purpose of present report.—The report of Mr. Douglass, of last year, embraced a general view of the extent of the coal bearing rocks, so far as then ascertained, and their details in the counties of Jackson, Ingham and Eaton; my own having been confined to the rocks below the lowest of the coal bearing series. Without further recapitulation of the facts heretofore submitted than may be unavoidable, I propose, in the present report to exhibit a comprehensive view of all the rock formation, *throughout the organized counties* of the state.

The "*geological section*," hereto prefixed, will serve to exhibit, at a glance, the succession of the rock formations, from the universally superimposed sands and gravels, down to the great limerock formation of the southern portion of our state, bordering on Lake Erie. It is intended to show the rocky basis which would be exhibited to view, if the country could be cleft through, in a line from Lake Erie to Maple river, in Clinton county. The rocks in this section are grouped according to their distinguishing characters and relative position, and each group is distinguished by an alphabetical letter. The *sub-divisions* of some of the groups, are given in the body of the report.

General Geology of the ORGANIZED COUNTIES OF MICHIGAN.

In the "section" alluded to, the rocks, embraced within the district under consideration, are divided into groups, as follows:

A. Erratic block group, or Diluviums.—a. Alluviums, ancient, recent.

B. Tertiary clays.

C. Coal measures. { Upper coal and shales. / Lower coal and shales. / Included sandstones. / Limestone stratum.

D. Sub-carboniferous sandstones.

E. Clay and kidney-ironstone formation.

F. Sandstones, of Point aux Barques.

G. Argillaceous slates and flags, of Lake Huron.

H. Soft, light colored sandstones.

I. Black, aluminous slate.

K. Limerocks of Lake Erie.

Digitized by Google

These will now be considered, as nearly as may be, in their consecutive order, beginning with the highest in the series.

Erratic Block Group, or Diluvial Deposits.

These consist of sand, pebbles, and large water-worn masses of previously existing rocks, with occasional small, local beds of clay. They have a thickness varying from one to upwards of one hundred feet; they form a universal mantle to the rocks, and constitute the soils of all the interior counties.

As this whole deposit is one of transport by water, and is made up of the detritus and disruptured fragments of heterogeneous formations, its character depends upon that of the rocks from which it is derived. For instance, *sand* constitutes by far the greater proportion, and this circumstance may be, in part, accounted for, from the fact of the immense extent of sandstone rocks existing farther to the north; and in part, by the fact, further disclosed by the geological researches in the peninsula, that an immense thickness of rocks, mostly standstone, which composed the upper series of the coal measures, has been broken up and removed from our geological series. *Fine gravel* constitutes the diluvium in the next proportion, and is the result of a similar abrasion of rocks of harder materials. Owing to the friable nature of the sandstones, as might be expected, few large bowlders of that material occur. Limestone pebbles and bowlders are abundant; a condition which also might be looked for, when we take into view the immense extent and thickness of the limerocks of our state, they being by far the most prominent formation above the primary.

These relations of the component parts of our diluviums, give a character to the *soils* of the peninsula, which enables us to compare them most favorably with those of most other states of the Union. Though being very generally what may be denominated sandy or gravelly, and often answering in appearance to a description of soils which, in the eastern states, are considered as absolutely barren, the variety and due intermixture of their components, and more particularly the large proportion of carbonate of lime which is combined with them, either in the form of pebbles, or in a very comminuted state, imparts to them unusual strength and fertility. The latter circumstance is that which so admirably adapts them to the growth of wheat, and in this respect, most of the soils of the peninsula may fairly be pronounced unrivalled.

Whatever may have been the causes which swept these materials over the face of the rocks, whether oceanic currents or bodies of floating ice, the character of these *diluviums*, as well as numerous accompanying facts, plainly imply that they came

Digitized by Google

in a direction northerly from their present beds, and often from great distances. Consequently we find intermingled, as well as scattered upon the surface, numerous rounded fragments of those primary rocks which are known to exist in the peninsula of northern Michigan and in Canada, from the size of the largest "hard-heads," down to fine gravel. In proceeding from our state southerly, these deposits are found gradually to thin out, evincing a diminution of the sustaining power with the increased distance from the original bed of the transported materials. So that, while the peninsula of Michigan has been most liberally supplied with an uncommonly deep and arable soil, made up of a variety of materials, the states of Ohio and Indiana, on the south, are in great part destitute; its place being supplied by the clays of the next lower formation.

The deposition of these materials took place with or without apparent order and uniformity, according to the character of the existing surface, and other circumstances which may have governed the transporting forces. From this cause considerable variations are to be found in the depth, nature, and composition of the diluviums, and hence, also, material differences are occasioned in the soils and other characteristics of the country. In many places a uniform stratification has taken place, as if the result of quiet deposition. This is more particularly apparent on the east and south side of the main ridge of the peninsula, and may be considered as a natural consequence of so considerable an obstacle as this partial barrier must have interposed to the force of northerly currents. Here, wells have been carried to the depth of 90 feet, through beds of stratified gravel.

Throughout all the diluviums, thin local beds of clay are of frequent occurrence, and occasional strata of hard pan or cemented pebbles. These clays, unlike those of the tertiary, contain little or no lime.

Most of the country thus covered by the diluvial deposits, exhibits the action of strong currents and eddies in a very striking manner. Districts of many miles extent frequently present a continued and close succession of rolling knobs or cones of gravel, with deep intervening basins. The more ordinary character of surface is a gentle roll or slight undulation occasionally subsiding to a perfect plain.

Except where a deposit of clay underlies, the growth of timber is almost invariably scanty, constituting what are denominated "oak openings." The character of their timber changes with the varying conditions of the soil, from white and black oak to burr oak or hickory, and the plains are frequently altogether destitute of timber. A dense growth of the usual hard wood timber sometimes occurs over isolated tracts, in swales, or along banks of streams. Of the character of coun-

Digitized by Google

try described are found the three most southerly ranges of counties, with the exception of those which immediately border the peninsula, on the great lakes, together with parts of the adjoining counties, and the counties of Ingham and Eaton. All the latter have a sub-stratum of clay, belonging to the great deposit to be presently described, and in consequence differ very materially in surface, soil and timber.

To this extreme thickness and comparatively loose texture of the diluviums, may be ascribed the great abundance of springs, and consequently of the small streams which irrigate the whole surface of the state, affording abundance of that element so desirable to the farmer. An undulating surface gives to most of these a sufficiently rapid flow to preserve a healthy current and to furnish a sufficiency of mill power. From the same cause, also, little difficulty is experienced in obtaining pure water by sinking of wells, and it may safely be said that Michigan is better supplied with living water, uniformly distributed, than any other state in the Union.

The vast number of small lakes for which Michigan is so remarkable, are due to the same causes. They occupy generally deep hollows, seemingly scooped out of the mass of diluvium, and are fed by the living springs that percolate through it. The number of these peninsular lakes is stated by the state topographer at not less than 3,000; being in proportion of one acre of water to every thirty-nine of dry land.

Another striking feature in the peninsula landscape, is the number and extent of wet prairies or marsh. Of these the proportion is much larger than of the lakes, and they often cover many miles of surface. These have their origin also from springs, issuing from the diluvium, aided often by the artificial dams of the beaver, and from being originally mere pools or shallow lakes, in time they become receptacles for beds of marl and peat. From the very tolerable hay which these prairies afford, and the very early supply of tender "feeding" for cattle, in the spring, these apparently waste places have been an invaluable aid to the settlement of the country. The primitive settler came hither, not to a desert waste or a "howling wilderness," but to lands cleared without aid from the woodman's axe, and verdant with unsown crops. He did not wait to provide pasture, but brought his herds and flocks with him, and the marshes furnished them ample sustenance throughout the year. And we hazard nothing in saying that these marshes, waste as many of them are now suffered to be, are destined to become still more valuable in sustaining the failing vigor of the country whose youthful prosperity they promoted. Their successful drainage is no longer a matter of experiment. Scarcely a marsh of much extent exists, which

Digitized by Google

is not capable of thorough drainage, with comparatively small expense, and, when thus subdued, of furnishing a soil rich almost beyond comparison. The literally exhaustless beds of marl and peat, with which these marshes abound, constitute another item of value no less important. But the consideration of these may more properly be referred to the head of *recent alluvions.*

But though affording a medium for the absorption of rain waters and their percolation through strata of gravel or quicksand, the diluviums are rendered sufficiently retentive, by the alumine contained in them, and by seams of cemented gravel and sand. Were it not for this, the moisture absorbed by our light, sandy soils, would soon be drained off and lost to the crops. A sub-stratum of cemented gravel, retentive of water, is common to many if not all the prairies, and to this circumstance may, no doubt, in great measure, be ascribed their accumulation of rich loam and consequent fertility.

Much curious inquiry has been excited on the question of the causes which produced the peculiar varied and open character of so large a portion of our peninsula. After the view which we have just taken of our diluviums, it may seem less a matter of surprise, that portions of the state should be adapted to the production of a dense growth of hard timber, and others only to the several species of oaks or to hickory, according to the continually varying conditions of the soil and its sub-strata. The existing analogies of the vegetable world, which exhibit similar results elsewhere, might lead us to infer these changes, and we may, without doubt, attribute to the peculiar characteristics of our diluvial envelop, and its varying conditions, the accompanying peculiarities in the features of the country and the growth and character of its timber.

How far the impervious character of the "hard pan," which so generally, if not universally, forms the sub-stratum to the prairies and plains, may account for the destitution or sparse growth of large trees, we are not altogether prepared to decide, and therefore, avoid for the present, considerations which at best may be considered somewhat theoretical. Nor will we assume to decide, with confidence, upon the extent of the effects produced by the ravages of the annual fires which formerly swept over these tracts. It is but reasonable to conclude that all these, and perhaps other concomitant causes, have operated together in producing the results we witness, while, according to peculiar circumstances, one of these several causes may have operated more or less powerfully than others.

Digitized by Google

Ancient Alluvion.

As the consideration of that immense mass of materials to which has been applied the name of *diluviums* or *erratic block group*, was necessary, in order to a correct appreciation of those lesser deposits, now to be considered, (which are associated with, and in fact compose a part of the former,) that important group claimed our first attention. We come now to the consideration of a class of deposits which may be called *alluvial*.

Some interesting facts in relation to the assumption, that the waters of the great lakes were formerly at a much higher level than at present, covering a large part of the border portions of the peninsula, were noticed in my report of last year. During the past season, a continuation of the "ridge," which is supposed to coincide with the beach of the ancient lake, has been traced through Macomb into St. Clair county; and further facts, confirmatory of the positions assumed last year, were observed in other more northerly districts. In the county of Macomb, this ridge has been much broken up by crossing streams, and is very irregular, showing frequently the existence of large entering bays and curvatures of the coast. This was the more particularly noticed, from the fact that, elsewhere, so far as observed, the course of the ridge is very remarkably continuous and well defined. In this county, also, a number of inferior ridges of evidently similar origin, were observed, between the main one and the present lake shore; leading to the supposition, that the subsidence of the waters did not take place gradually and constantly, but that sudden lapses occurred, and the water line had been stationary at intervals.

The soil and detrital matter superficially covering that portion of the peninsula which is embraced between this ancient lake ridge and the present shores of the lakes, I have denominated *ancient alluvion*, to distinguish them, as well from alluvions now in process of formation, as from the immense mass of *diluviums* which overspreads the whole interior of the state, beyond this separating ridge.

The portion thus distinguished by alluvial deposits, embraces a broad belt of border country, varying in width from about 25 to 50 miles. It is, with small local exceptions, heavily timbered and very level. But, on passing the bounding ridge, there is, in general, an almost immediate change to a soil of coarser character, and a more undulating surface. This ancient alluvion is a deposit, from a quiescent condition of the waters, and similar to that which is now taking place in the beds of the present lakes. It forms, in general, but a thin mantle to the underlying formations, consisting often of mere ridges

Digitized by Google

of sand, and, owing to the deprivation of its lime, has, in general, less fertility than the diluviums.

The heavily timbered district is not altogether coincident with the extent of this alluvion, but is dependent chiefly upon the following cause. Throughout their whole extent, the alluvions are underlaid by the tertiary clays. These are a formation anterior to both the diluviums and alluvions, and are frequently found extending far beyond the old lake ridge. The country thus underlaid, is that which is almost wholly clothed with a dense growth of timber. This formation will be found described under the head of tertiary clays.

Recent Alluvions.

Under this head, I shall here allude only to local beds of marl, bog ores, and peat.

Marl occurs in the greatest abundance, universally distributed throughout the diluvial district, and consists of local deposits, which originates solely from the lime so profusely contained in the diluviums. Such beds are in constant process of formation and increase, wherever that ingredient exists. As it is present in a much less degree in the ancient alluvion, no extensive beds are consequently found throughout the district occupied by the latter.

Bog iron ores are deposits, originating in a similar manner, from the iron contained in the soil, which is dissolved out by the rain waters and collects in low grounds.

Peat beds are exclusively of vegetable origin, and are common both to the alluvial and diluvial districts.

The character, abundance, and value of the marl, peat, and bog ore beds of our state, having been fully dwelt upon in the reports of last year, I shall make no further remarks upon their practical application. I cannot avoid, nevertheless, once again directing the attention of the farmer of Michigan to the fact of the unexampled abundance in which the two former occur, conveniently distributed for universal use *as a manure*, and urging the use of them, as the cheapest, and in most cases, the best of mineral manures, and which will be found a very important means of improvement in his agricultural economy.

Organic Remains.

Bones of the Mastodon were last year discovered, in the ancient alluvion, in the western part of Macomb county. They were mostly so much decayed as not to bear exposure to the atmosphere, and a molar tooth only has been preserved. Similar relics were, several years ago, disinterred on the Paw Paw river in Berrien county.

There is now in possession of a gentleman in this city, a vertebal bone of enormous size, said to have been found, many

Digitized by Google

years ago, upon the St. Joseph river, and which is pronounced by the state zoologist, Dr. Sager, to be the caudal vertebra of a whale. It measures in vertical diameter, including spinous process, 18 inches; transverse diameter, including lateral processes, 2 feet; diameter of body, 11 inches; length of body, 10½ inches; length of spinous process, 9 inches. Its weight is 21 lbs, which is probably less than one half its original weight, as the bone is partially decayed.

Tertiary Clays.

These extensive deposits belong to an era subsequent to the removal of the upper coal bearing rocks. They cover all the border counties on the east and west slopes of the peninsula, and, in some instances, stretch far inland. These clays extend over more than two-thirds of that part of the state which lies south of Saginaw, Maple, and Grand rivers, embracing nearly the whole of the counties of Ottawa, Allegan, Van Buren, Berrien, Monroe, Wayne, Macomb, St. Clair, Sinilac, Huron, Tuscola, Saginaw, Lapeer, Clinton, and Eaton, and a large portion of Ingham, Genesee, Shiawassee, Ionia, Kent, St. Joseph, Branch, Hillsdale, and Lenawee. The remaining portions of the counties last named, and very nearly the whole of Oakland, Livingston, Washtenaw, Jackson, Calhoun, Kalamazoo, and Cass, are destitute of this sub-clay formation, and their diluviums rest immediately upon the rocks.

A dense growth of timber almost invariably accompanies this formation, whatever may be the immediate soil. We find this observation applicable to large portions of Eaton, Ingham, Clinton, Shiawassee, and Genesee counties, though these counties are based in part on the sandstone rocks of the coal series, and have sandy, diluvial soils; while the sandstone country south of them, presents little else than oak openings and plains.

These clays are an extension of the same formation which covers the western and northern part of Ohio, and the east and north of Indiana, and which constitutes the soil of a large proportion of those districts.

The upper portion is a gravelly, yellowish clay, varying in thickness from one to fifteen feet, and having an average probably not exceeding 5 feet. Beneath this is a similar clay, of a blue color, and which in some places has been found to exceed in thickness one hundred and twenty feet. Both clays contain at least 20 per cent, by weight, of carbonate of lime, and this marly character injures them materially for the manufacture of bricks or pottery.

On the western slope of the peninsula, the place of the yellow and blue clays is sometimes supplied by clay of a reddish

Digitized by Google

color, of great thickness. No fossils have yet been discovered in any of the clays of this formation.

COAL MEASURES.

The rocks which include the coal beds of our state, occupy, comparatively, but a small portion of that part of the state under consideration, and are embraced within the counties of Jackson, Calhoun, Ingham, Eaton, Kent, Ionia, Clinton, Shiawassee and Genesee. They consist of strata of sandstone, shale, coal and limestone. Covered as these rocks are, with thick deposits of diluviums and clays, they make outcrops at but few points, and the determination of their order and extent has been a matter of no small difficulty. From the dip of the rocks composing these measures, there can be little doubt that the coal basin extends northerly beyond the counties named, perhaps as far as to the head branches of the Tittabawassee and Maskego rivers. But that country is as yet almost wholly unsettled, and though partial explorations have been made through it, since the commencement of the geological surveys, the thick mass of overlying materials has hitherto prevented a determination of the northerly extent of these rocks.

Limestone Stratum.

As this stratum, from its position, (being the lowest in the series,) determines the extent of the rocks considered as composing our coal basin, I shall, for the sake of greater precision, give to it the first consideration.

A gray limestone, in irregular, detached beds, is found along the extreme border of the coal bearing sandstones. They are evidently relics, in place, of a thin but extensive stratum, and as no coal has been found below this rock, I have assumed it as the terminating rock of the "coal measures" proper of our state. Following this rock, as it makes its occasional appearance, the southerly limits of the coal basin may be traced by a line drawn from the Shiawassee river, at Corunna, through the easterly parts of Ingham and Jackson, between ranges one and two east, to near Napoleon, in the latter county. It then turns westerly though town three south, ranges one and two west; from whence, taking a direction north-westerly, it pursues an irregular line, passing through Bellevue, in the south-west corner of Eaton county, to Grand Rapids, in Kent county. Here the limerock is more extended, and a thickness has been determined to it of fourteen feet. The rock is characterized by the fossils Nucula and Cyathophyllum vermiculare. This stratum affords the only limestone for the kiln, or other purposes, except occasional bowlders, to be found in the interior of the state, and its value is the more to be appreciated as the formation is itself of very limited extent.

Digitized by Google

Lower Coal.

But two continuous beds of workable coal are ascertained to exist in the state. The lowest of these lies at a small distance only above the limestone stratum, and is associated with a very thick bed of shale, which is also sufficiently bituminous to answer the purpose of an inferior coal.

Coal of Jackson County.—That portion of the lower coal bed which underlies a portion of this county, makes an outcrop in the valley of Sandstone creek, town of Spring Arbor, and has there been penetrated to the depth of three feet. The thick bed of shale opened at Jackson undoubtedly is associated with and belongs to this coal stratum.

Coal of Ingham County.—Passing down the easterly side of the basin, the coal is again met with, in the north-east corner town of Ingham county, where it is embraced in a succession of shales and friable sandstone, cropping out in the banks and bed of the Red Cedar river. The coal has here been penetrated two and a half feet. But neither here nor in Jackson county, is the entire thickness of the bed determined. "The coal at this point," as is observed in the report of Mr. Douglass, of last year, "is very accessible, and must, ere long, prove of great importance. It is situated on a stream that may be made navigable for flat bottomed boats and perogues, with comparatively small expense, for a considerable portion of the year, and opening a direct communication with Lake Michigan."

It may here be observed, that the coal of this lower bed, universally, has more than usual compactness and purity, and is equal to the best bituminous coal of Pennsylvania.

Coal of Shiawassee County.—The coal again makes its appearance, at the border of the basin, near the county seat of Shiawassee county, where it crops out between thick and extensive layers of sandstone, in the banks of the small creek entering Shiawassee river. The coal has here a thickness of from three and a half to four feet, and is accompanied by shale, the entire thickness of which is not ascertained. This coal is very eligibly situated for mining. It is of excellent quality, and the dip is so slight that but little depth of excavation will be required. This is the only locality in the state where coal to much extent, has been raised for economical use. Both the coal and associated shale are constantly employed to great advantage at the steam mill of Mr. McArthur, in Corunna, as well as by neighboring smiths.

From an area of eight by nine feet Mr. McA. raised four hundred and sixty bushels of coal and shale, and he informs me it can be sold at the county seat for ten cents per bushel.

Digitized by Google

The underlying limerock stratum makes an outcrop about a mile south-west from this point, in a bed of probably many acres in extent.

Shales of Flint River.—The coal bed and its accompanying shale may be traced still further east, to the Flint river, in Genesee county. Here the former probably has nearly thinned out, as only loose masses are found, in the bed of the river. The associated black shale and slate may be observed in the river banks, (town eight north, five west,) where it attains a thickness of sixteen feet, and is underlaid by the sandrock.

The coal of the Shiawassee and Flint rivers, appears to occupy the extreme edge of the coal basin, which here thins out into a wedge form, narrowing gradually until it terminates in a mere point, probably as far easterly as Lapeer county. The inclination of the strata is north-westerly, to an amount which would soon carry the coal beneath the surface; but appearances seem to warrant the conclusion, that at this point a large part of the rocks of the coal measures, continued northerly, have been entirely removed.

Upper Coal.

The outcrops of this coal, within that part of the state under consideration, are of small extent. It is found at the surface on and near Grand river, in the northern part of Eaton county, and with its associated shales and sandstones, occupies the central part of the coal basin, probably including the whole of Clinton and Gratiot counties. Except in the extreme south-west corner of the former county, it lies too deep for examination.

Most of this coal is inferior in quality and thickness to the lower coal. It composes several layers, not exceeding in thickness from one to two feet each, and is embraced in alternating strata of dark gray shales, blue clay, sandstones and thin beds of argillaceous iron ore, exceeding in the whole twenty feet.

Coal of Eaton County.—Sections of the alternating strata of coal, and accompanying rocks, taken on Coal and Grindstone creeks, were given by Mr. Douglass in his report of last year. As that report contained full local details of all the coal-bearing rocks of Jackson, Ingham and Eaton counties, I shall here allude to the rocks of that portion of the state only in such a general manner as will be necessary, in order to afford a comprehensive view of the extent and value of the coal measures of our state. By reference to the document alluded to, it will be seen that, though inferior in thickness to the lower coal bed, the several strata of coal exposed on the creeks above mentioned, have an aggregate thickness of from two to three

Digitized by Google

feet, and will, no doubt, prove of importance under a more settled condition of that portion of the state.

Included Sandstones of the Coal Measures.

Gray and yellow Sandstones.—The sandrocks included between the upper and lower coal are mostly of a coarse, quartzose character, and of a light gray or yellow color. Most of the strata are friable, but harden on exposure. They are distinguished from the quartzose sandstone below the lower coal, by containing impressions of the coal plants. These are referable chiefly to the genera Lepidodendron, Stigmaria and Calamites.

These rocks are found outcropping at numerous points through the northern part of Jackson county, the western part of Ingham and eastern part of Eaton counties, and portions of Calhoun, Clinton, Shiawassee and Genesee. In all of the above named counties they occur in situations which admit of being economically quarried, and may often be obtained in firm blocks of any dimensions required. From this series of sandrocks was furnished the material for the construction of the state penitentiary at Jackson, and at several places, as at Napoleon, excellent grindstones are manufactured from it.

Red or variegated Sandstone.—This rock immediately underlies the upper coal and shales. It's outcropping edge is found in the valley of Grand river in the northern part of Eaton, county, and in the banks of the Lookingglass river, in the adjoining towns of Clinton county, and in township seven north, six west, Ionia county. No fossil plants were discovered in this rock. It has been employed with advantage as a building material. The entire thickness of the included sandstones must be several hundred feet.

The following general section will exhibit, at one view, the relative order and thickness of all the rocks of our coal measures, above described, so far as a sub-division of them has been found practicable.

Digitized by Google

General section, applicable to the coal basin of Michigan.

	Thickness.
Diluviums and tertiary clays,	1 to 100 ft.
Brown or grey sandstone,*	20
Argillaceous iron ore, in thin included beds.*	1
Coal strata, alternating with friable slaty sandstone and thick beds of black shale and slate,* in the whole probably,	30
Red or variegated sandstone, (Clinton and Ionia counties,)	Undetermined.
Light gray, coarse, quartzose, micaceous sandstones. Generally in thick layers and forming ledges, mostly friable and easily quarried. (Seen at intervals along Grand river, from Jackson to Grindstone creek, Eaton county,)	
Coal and black bituminous shale, (Jackson, Ingham, Shiawassee and Genesee,	20
Blue, compact, slaty sandstone, (Shiawassee co.)	
Gray limestone, found in local beds, being relics in place of a once continuous stratum. (Encircles the coal basin from Grand Rapids to Shiawassee river.)	14

The rocks in the above section embrace all those which are included in the division marked C, in the *geological section*, prefixed to this report.

* Counties of Clinton and Eaton.

Digitized by Google

Sandstones immediately below the Coal.

These sandstones, (marked D, in the plate,) as well as most of the formations below the coal, were fully described in my report of last year. I shall, therefore, now notice them only so far as to exhibit their relative position in the series, viewed as a whole, and the extent of country occupied by them.

These sandstones, which, in the report alluded to, are described under the name of *fossiliferous, ferruginous sandstones*, excepting in some of the uppermost strata, are generally fine grained and of a yellow color. Some strata of the latter abound in marine fossil shells, among which the genus Nucula is very abundant, and there were observed species of Atrypa, Bellerophon, Euomphalis, and Pterinea.

Though here classed as beneath the coal rocks, these sandstones are associated with that series of rocks which are usually regarded as belonging to the carboniferous era. They occupy nearly the whole of Calhoun county, the lower half of Jackson, and the northern half of Hillsdale county; through which counties their outcrops may be observed at numerous points, or they are reached in almost all the deep wells. It is probable, also, that these rocks occupy most of the eastern portions of Jackson and Shiawassee counties, east of the limestone stratum above described; and they make their appearance, at its eastern edge, on Lake Huron, near the entrance of Saginaw bay.

The aggregate thickness of these sandstones may beestimated at upwards of 300 feet.

Clay, containing Kidney ore of Iron.

This very valuable formation immediately succeeds to the sandstones above described, underlying them and cropping out at the extreme southerly bend of the basin. It occupies a part of the south-western portion of Calhoun county, the whole north-eastern portion of Branch county, or nearly so, and part of the western and central portions of Hillsdale.

It consists of an indurated, grayish brown clay, having much the appearance of a shaly limestone or dark gypsum, regularly stratified, in which are imbedded nodular masses of kidney ironstone. This is a rich and valuable ore and occurs at several points conveniently for working.

This formation is the lowest that is discoverable in this portion of the state, and is not certainly known to make an outcrop elsewhere.

For further description of this clay and its contained ore, I refer you to the annual report of the state geologist of 1840, and to my own appended thereto, for many practical considerations relative to the value of the ore and its imbedding clay. This formation is marked F, in the plate.

Digitized by Google

Sandstones of Point aux Barques.

These are mostly a coarse, greenish gray or rusty yellow rock, in some of the layers approaching a conglomerate. They form cliffs along the shore of Lake Huron in Huron county, rising at Point aux Barques to twenty feet. Fossils are rare, but Atrypa and Calymene were obtained. These sandstones occupy the coast north of town seventeen, being visible in ledges for about twenty miles. The upper portion of the series contains numerous, small imbedded pebbles of quartz, so as to re semble a conglomerate or puddingstone, but no great thickness is observable of rock possessing this character.

An extension of the outcropping edge of these sandstones, it is probable, gives rise to that swell of land which forms the summit level of the peninsula, stretching in a south-westerly direction from Point aux Barques to Hillsdale county where the green and yellow fossiliferous sandstones, above described, overlie it. But throughout this whole extent no outcrop of the rock is visible, owing to the thickness of the diluviums.

These sandrocks, taken in connection with the formation next described, hold a place in the geological series, corresponding to the "waverly sandstones," and "conglomerate," of Ohio, but the deposition seems to have been made under somewhat differing circumstances. No well defined series is apparent in our state answering fully to the Ohio conglomerate; though the upper portion of the sandstones of Point aux Barques approach that character.

The whole thickness of these sandstones probably exceeds 250 feet. This group is marked F, in the plate.

Clay Slates and Flags of Lake Huron.

Alternating with the lower portions of the sandstones of Pt. aux Barques, are strata of slaty sandstone, approaching the character of slate; to which succeeds a compact, micaceous clay slate of a blue color. This latter rock continues to occupy the coast for about thirty miles, or from township twelve to township eighteen north, and rises in ledges of from five to fifteen feet.

The slaty sandstones intervening between these clay slates and the overlying coarser sandstones are of a flaggy structure in some of the layers, and from these were obtained those fine flagging stones which have been extensively used, for three years past, for pavements in the city of Detroit. Some of these strata are distinguished by *ripple marks*. No fossils have been discovered in this formation.

These slates and alternating sandstones may be considered as the upper salt rock of our state. They have been passed through in boring for salt at Grand Rapids, and found to yield strong supplies of brine. At this point they are found also to

Digitized by Google

alternate with beds of gypsum and gypseous marls, as will appear by reference to the table of the strata passed through, given on a subsequent page. The thickness ascertained to these slates, at that point, is about 170 feet.

Soft, coarse grained Sandstone.

A series of sandrocks answering to this description, and generally of a dark color, succeeds to the clay slates and shales last above described, and has been penetrated at the borings at Grand Rapids, 230 feet. There are, as yet, no data for ascertaining the entire thickness of this series, since it does not make its appearance at any point on the coast of the peninsula, this rock evidently forming the bed of Lake Huron, near its foot, and lying too deep for observation. In relative position and perhaps in character, this rock, or a portion of the series, corresponds with the lower salt rock of Ohio and Virginia, and is the rock from which, in these states, the strongest supplies of brine are obtained. The result of the borings in our own state, thus far, would seem to confirm the opinion that this rock is the equivalent of the lower salt rocks of those states.

Black, bituminous, aluminous Slate.

Underlying the sandstones above noticed, though, also, nowhere observed to make an outcrop within the portion of the state now under consideration, there is a well characterized black, bituminous slate. This rock makes an outcrop much farther to the north, and is described by Mr. Douglass, in his accompanying report, to which I refer you. This slate contains much sulphuret of iron; it will burn readily, and in general character and position, it agrees with the black shale stratum of Ohio and Indiana, but its thickness is probably not nearly so great.

Limestones of Lake Erie.

This formation, which immediately underlies the black slate, is by far the most continuous and extensive rock formation in the western states. It is found outcropping in several district ranges throughout Monroe county, forms a considerable part of the lake coast, and serves as a basis to the islands at the mouth of Detroit river, and is an extension of the rock formation which occupies the whole western part of Ohio and the northern and eastern portions of Indiana. It is found forming the bed of Lake Michigan at its head, and undoubtedly is the underlying rock of a considerable portion of the extreme southwestern part of our state. The overlying tertiary clays conceal a great part of this formation.

The character and economical adaptation of these limestones

Digitized by Google

have been sufficiently set forth in former reports, to which, accordingly, I refer you for detailed information.

Among the fossils contained in the limerock, I distinguish the following genera: Calymene and Asaphus, Cyathophyllum, Productus, Terebratula, Spirifer and Dethlyrus, Bellerophon, Atrypa, Strophomena, Orthocera, Encrinus, Retepora and Madrepora.

In proceeding southerly from the outcrops of the slates of Lake Huron, a limerock is met with, which may be seen in the bed of a small stream near the lake coast, town nine north, sixteen east. In character and fossil contents it bears a resemblance to that of Monguagon, Monroe county; but its position would seem to indicate it rather as an included stratum in the series of sandrocks and shale, which are higher in the geological series.

The following general section will exhibit the order of succession and approximate thickness of the rocks, above described, *lying below the coal basin*, and is a continuation of the table, given on page 130, of the successive rock formations of the settled portions of our peninsula:

Digitized by Google

General section, applicable to all the rocks below the coal beds of Michigan, in that portion of the peninsula included in this report.

		Mean thickness.
D.	Sandstones of Jackson, Calhoun and Hillsdale. — Coarse quartzose, grayish sandrocks, Fine grained, ash colored and dingy green, interstratified with slaty sandstone and clay shales, Yellow sandrocks, colored by iron, and abounding in fossils,	300 ft.
E.	Dark gray and blue indurated clay, containing kidney iron. (Counties of Hillsdale, Branch and Calhoun,)	45
F.	Coarse sandstone, or partial conglomerate, Yellow and greenish sandstones, (coast of Lake Huron, at Point aux Barques,)	250
G.	Slaty, argillaccous sandstone, alternating with sandstone and clay slates, Blue clay slates and flays, with alternating gypsum beds and gypseous marls, (Lake Huron coast, below Point aux Barques,)	180
H.	Soft, coarse grained sandstones, (occupies bed of Lake Huron at its foot,) exceeds	230
I.	Black aluminous slate, containing pyrites, (coast of Lake Huron at Thunder bay,)	
K.	Gray limerock, fossils abundant, (west end of Lake Erie,)	

The rocks in the above section embrace all those which are included in the divisions marked D, E, F, G, H, I, and K, in the GEOLOGICAL SECTION prefixed to this report.

Digitized by Google

Dip of the Rocks.

Great irregularities of dip are observable in all of our rocks, which circumstance has increased the difficulty of determining the precise relative position, extent, and thickness of the several strata. Many of the sandstones belonging to, and immediately underlying the coal, are much shattered, as if by a quick vibratory motion, and a similar cause has occasioned contortions of dip, in most of the still older rocks. I have, therefore refrained from noting the amount and direction of dip at the various localities mentioned. All the rock on the eastern slope of the peninsula, south of Saginaw bay, have a general dip north-westerly, while the dip along the southerly and westerly border of the basin of coal bearing rocks, is such as to indicate the counties of Clinton and Gratiot as occupying nearly the central part of the coal basin. This being the case, the carboniferous sandstones, with their included coal beds, may be considered as extending far to the north of the Saginaw and Grand rivers, possibly as far north as town 23 north, or the head waters of the Maskego and Tittabawassee rivers. This supposition, the character of that region, as well as the dip of the rocks, would seem to warrant. But the country alluded to, is, at present, in an uninhabited condition; the surface, moreover, is very generally level, and so completely overspread by the deposits of diluviums and tertiary clays, as totally to conceal the rock formations. Surveys have, however, been extended into that region, so far as was practicable with the means afforded, and much valuable information is collected.

If I am correct in the above conclusion, the coal bearing sandstones, or strictly speaking, the *coal basin*, occupy an extent of surface, nearly oval in form, whose centre very nearly corresponds with the true centre of the peninsula. The tract thus embraced is 150 miles in length, north and south, and upwards of 100 in extreme breadth; covering an area of about 11,000 square miles, or one-fourth the entire area of the lower peninsula.

It may be added, that the average dip of all the rocks described, does not probably exceed 15 feet in the mile; though the dip may be said to vary, at different points, from 10 to 20 feet per mile.

Borings at the salt well, Grand Rapids.

The borings for salt at the village of Grand Rapids, Kent county, commenced in the limerock stratum, mentioned above, page 561, as constituting the terminating rock of the coal basin. At this point, several of the next, succeeding series of sandrocks appear to have thinned out, and their place is here occupied by alternating strata of clay slates and sandstones, with

Digitized by Google

gypseous marls and beds of gypsum. These continued to a depth of 190 feet, and below this the borings have been carried mostly through series of sandrocks, to the depth of 415 feet.

Two beds of beautiful crystalized gypsum were passed through, at a depth of about 60 feet, and were found to be from 4 to 6 feet in thickness. This gypsum, it will be recollected, from the notice of it in former reports, appears at the surface at Gypsum creek, three miles distant; showing an inclination to the rocks, at this point, of about 20 feet in the mile.

By reference to a map of the state, it will be apparent that the strongest brine springs, (among which are included those in the vicinity of these borings,) make their appearance along a line which will be found to correspond with the "synclinal axis," or axis of the dip of the rocks composing the great peninsula basin; a circumstance which would be looked for, from the fact that the ordinary law of gravitation would conduct the strong brines to the lowest levels of the rock strata. While, therefore, the depth to which the boring must be carried, in order to reach the lower salt bearing strata, will be greater than would be the case in some other portions of the state, the comparative strength of the brine obtained may be expected to be proportionably increased.

Through the politeness of the Hon. Lucius Lyon, I am enabled to subjoin a section of the strata passed through at the boring above mentioned.

Digitized by Google

Diagram of strata passed through at salt well of Hon. L. Lyon, Grand Rapids.

		Thickness in feet.	Total depth, feet.
1	Hard gray limerock, irregularly stratified, and in portions cavernous,	14	14
2	Yellow sandrock, producing fresh water,	6	20
3	Blue clay,	2	22
4	Coarse, reddish sandrock,	5	27
5	Blue clay,	3	30
6	Clay slate, with thin layers of gypsum interstratified,	11	41
7	Clay slate,	18	59
8	Gypsum,	4	63
9	Clay slate,	2	65
10	Gypsum,	6	71
11	Clay slate,	3	74
12	Bluish sandrock, very hard, with sharp grit,	8	82
13	Bluish clay rock, intermixed with particles of reddish rock, compact. This rock is strongly impregnated with saline particles,	18	100
14	Sand and clay rock, alternating,	7	107
15	Carbonate of lime and gypsum, combined; very compact,	10	117
16	Gypsum,	7	124
17	Clay state,	9	133
18	Gray sandrock, of very sharp grit, and hard,	5	138
19	Clay rock,	2½	140½
20	Gypsum, with vein of salt water,	6½	147
21	Clay rock,	6	153
22	Gypsum and clay slate, or gypseous marls, alternating,	19	172
23	Gypsum,	3	175
24	Clay rock,	3	178
25	Gypsum,	1	179
26	Hard sand rock, producing fresh water,	1½	180½
27	Clay rock, free from saline matter,	10½	191
28	Hard sandrock, very compact and of dark color,	7	198
29	Soft sandrock, nearly colorless,	18	216
30	do of dark blue color,	32	248
31	Loose, coarse grained sandrock, of reddish color, opening a very copious spring of fresh water,	17	265

Below the strata last noted in the above table, the borings have continued through a further depth of 150 feet, but the data received are not sufficiently minute to enable me to extend the table. From the information obtained, they would seem to have passed through mostly soft, light colored sandrocks, of a coarse grain and with a sharp grit, and in the lower portions containing cavities into which the drill sometimes falls several inches. Particles of salt were brought up, and the rock yields a very strong brine.

All the strata, from the depth of 81 to 179 feet, or until the sandrock was reached, were strongly impregnated with saline particles, and yielded brine one-fifth saturated. These clay slates and marls may be regarded as the "upper salt rock," and they are thus shown to furnish a brine superior in strength to

Digitized by Google

that of many of the salt wells of Ohio, and which, even could no stronger brine be obtained, is capable of sustaining a profitable manufacture.

The brine now obtained, at a depth below the above of about 230 feet, may be supposed to proceed, by veins, from the "lower salt rock," lying at still greater depth, and from which the strongest and best supplies of brine in our state may be expected to be obtained.

The immense quantity of fresh or slightly brackish water which is discharged through the orifice, (equal to a hogshead per minute, in the present state of the operations, renders it impossible to decide, with absolute certainty, what will be the full strength, as well as supply, of the strong brine; but, from that which can be obtained, it is estimated, that of the brine which the well is now capable of furnishing, from fifty to sixty gallons only will be required to produce a bushel of salt. This, it will be seen, is equal in point of strength, to that obtained from the salt wells on the Kenawha river of the Ohio, where the borings are carried to about the same depth, and at which are manufactured annually, from one to two millions of bushels of salt. Next to those of the state of New York, the Kenawha salt wells are considered the best in the Union.

In addition to the quality of the brine obtained, the advantages for the manufacture of salt at the point under consideration, are not exceeded at those places in our country where the manufacture is conducted to the largest extent. The supply of wood for fuel and other necessary purposes is abundant, and will tend greatly to reduce the price for which the manufacturers will be enabled to furnish this article. And, though the whole matter may be said to be still in the incipient state, there is every reason to feel satisfied with the prospect, which so fair a beginning holds out to the state, for obtaining a result so very desirable, as that of supplying her citizens with this important article from the product of her own manufacture.

Summary,

Comprising general observations on the economical results of the survey.

From the view we have now taken of the rock strata which compose the lower half of the southern peninsula of Michigan, it will be seen, that the geology is of an exceedingly simple character, while it is, at the same time, richest in the mineral wealth most important to an agricultural community.

Michigan occupies a portion of the great valley of the Mississippi—the richest in the world—and which is wholly occupied by a broad extent of the rocks classed by geologists in the transition and secondary formations. Of these, the great lime-

Digitized by Google

stone formation, (of which that of the west end of Lake Erie is a portion, and which concluded our view of the several geological groups which make up the organized portion of the state,) occupies the lowest place, and is the lowest and oldest of the rocks found on the lower peninsula of Michigan. The upper peninsula of our state, as will be seen by the report of the state geologist, is constituted of lower and still older rocks, and presents, in consequence, a very different aspect, as well as a different mineral character, from the lower peninsula.

The most important of the minerals usually associated with the rocks of those formations which compose lower, or Michigan proper, are iron and led ores, coal, salt, gypsum and marls. There are no indications which would warrant the supposition that *lead*, in any valuable quantity, exists on the lower peninsula. At least, it may be positively assumed that no ores of lead will be found throughout any of the present organized counties of the state. All the other minerals mentioned, exist, and some of them, as has been shown, in great abundance. The results of the examinations into the economical geology of the state, as regards the most important of its minerals, I shall here briefly recapitulate.

Iron.—An ore of this mineral, under the form of kidney iron-stone, exists, chiefly in the counties of Branch and Hillsdale. It is sufficiently extensive to be of much value, and will give an average yield of about 30 per cent of metal. This ore is embraced in the clay formation, described on page 506 of this report, and a more extended notice will be found in the geological report of 1840, pages 25 and 86.

Iron, under the form of bog ores, is found in various parts of the state. The most extensive deposits, and those alone which it may be safe to assert will yield a rich profit, are at the county seat of Kalamazoo, near Concord, in Jackson county, in the county of Oakland, and perhaps Wayne. No furnaces, for the reduction of these ores, have yet been erected. It is shown, by the late census, that there are fifteen furnaces in the state for the casting of pig iron, requiring 614 tons, and the whole amount of iron imported, under various forms, is much greater. The cost of this importation, which in so heavy an article as iron, is very considerable, might and ought to be saved to the state, by a domestic manufacture from our own material. For more detailed observations, and an account of the localities at which this ore occurs, see geological report of 1840, pages 28, 60 and 100.

Bituminous Coal will be found in abundance for all the wants of the state. The only locality where mining operations have been commenced is at Corunna, Shiawassee county, where

Digitized by Google

this mineral has been already used to considerable extent, and, though in the midst of a heavily timbered country, is for many purposes preferred to wood or other combustible. Other points also, eligibly situated for the mining of coal, have been made known in Ingham, Eaton and Jackson counties, and it may be fairly inferred, from the facts already determined of the range of coal bearing rocks, that outcrops of the coal beds will be found at numerous other points than those now known in these counties, where it is not now *known* to exist, as through parts of Kent, Ionia and Genesee counties. (*See further statements under pages* 562 *and* 563 *of present report.*)

SALT. There no longer exists any doubt that this mineral may be obtained at a cheap rate and in any required quantity, for supplying the great and increasing demand in our state. The operations commenced at the state salt wells near Grand Rapids, Kent county, and on the Tittabawassee, Midland county, are not sufficiently advanced to determine the extent of the anticipated profit of the manufacture. The strongest brine obtained, up to this time, at the salt well of Mr. Lyon, at Grand Rapids, will, without doubt, prove as productive as that of the best wells of Ohio and Virginia. So that the present results may be considered as certainly indicative of the success that was formerly supposed would attend the boring for salt, if properly conducted, within our state.

Michigan *imports* salt, probably to the amount of three hundred thousand dollars annually, which large amount of money might, as it soon will, be saved to the state, by the supplies furnished from her own resources. The average price of salt at the ports of entry, has been about three dollars per barrel for the last four years. But when the works now in progress shall have been brought into successful operation, supposing no stronger brine to be obtained than that above stated, the article of salt can be furnished at a much less price than it now costs the consumer.

GYPSUM. An extensive deposit of this very valuable mineral occurs in the vicinity of Grand Rapids. The bed is here very extensive; is about six feet in thickness, and in quality is equal to the best gypsum of Nova Scotia. The same mineral is found elsewhere in our state, but this is by far the most important locality at present known, and one that affords every facility for quarrying and distributing the mineral over the state. A mill was erected during the past summer, and the ground plaster, for manure, is already manufactured in considerable quantities.

Though the above locality is the only one known at which gypsum occurs, *in the interior* of our state, yet, from the ascer-

Digitized by Google

tained geological character and dip of our rocks, and the associations of this mineral, it may be presumed that gypsum and its associated marls, will be hereafter disclosed at other points in the vicinity of the above bed, and that it will be found also to occur at other localities, in the interior, which are concealed from present observation.

Shell Marl occurs in the greatest abundance throughout the state, but more especially among the marshes and lakes of the openings. It forms deposits, varying in extent from one acre to one hundred, and these are pretty widely distributed. Its exceeding great value and cheapness, *as a manure*, is far from being truly appreciated by our citizens. But the time is rapidly approaching, when this invaluable mineral will be no longer despised because it is abundant, simple and cheap, and our state will then find, in her numerous marl beds, one of the richest treasures of which she is possessed. For a full account of the nature and uses of this mineral, the reader is referred to page 94 of the report of 1840, and the previous reports.

The character, applications and value of the *rocks* with which the above mentioned minerals are associated, together with other matters of practical interest, connected with the geological structure of our state, are so fully detailed in the preceding pages and in previous reports, that further allusion to them, in this place, is deemed unnecessary.

From the foregoing facts, it cannot fail to be seen that, while the soils of our state are admirably adapted to the various purposes of agriculture, and for the production of wheat—the most important product of the soil—superior to those of any known portion of the Union, Michigan possesses, also, within herself, all the mineral treasures that are really requisite for sustaining and renovating her soil, for supplying the wants of her homesteads, and for maintaining those branches of domestic industry which are of the most importance to her people. Thus science discloses those treasures, buried in the earth, which art and industry may appropriate to increase the profits of labor. And though the objects of science are general in their nature, and not confined by the limits of districts or states, the legislator feels a peculiar interest in having those resources developed by its aid, which may be turned to the advantage of his rising commonwealth; commerce, agriculture and the arts receive a stimulus by the new sources of wealth and supply which it opens to the wants of each. In this view, the study of geology becomes one of the most universally useful that can occupy the attention of practical men.

In comparing the extent of our resources thus obtained, with the little that was known concerning them a few years ago,

Digitized by Google

we have reason to feel satisfied with the prospect of future wealth and importance, which it has opened to us. If during the stirring times of an early settlement, so rapid as has been that of our state, for the past five years, less interest was excited by the development of our mineral resources than their importance might demand, a satisfactory cause may be found in the imperfect state of the knowledge hitherto obtained, and in the pressure of the more immediate wants of a new, somewhat fluctuating and unsettled community. During the period mentioned, however, the population of southern Michigan has advanced, from a less number, probably, than 60,000 to 212,000; a rate of increase unexampled even in the annals of a series of settlements, to the progress of which the world affords no parallel. Meanwhile, the liberal course of our state policy has been steadily unfolding her resources, and, at this moment, notwithstanding the burden of a heavy debt, and the accumulated pressure of more widely felt financial difficulties, we are rapidly advancing in wealth, and are becoming awakened to the means of which we find ourselves possessed, for successfully competing with older states, in the departments of agriculture, commerce and manufactures. With lands among the richest in the world, well watered and advantageously situated for market, with water power abundant, and with an extent of coast and facilities for water transportation unequalled by any other inland state, and, added to this, a population possessing a large share of that character for enterprise which distinguishes their countrymen, nothing will tend more to give full efficacy and permanency to these advantages than to make more perfectly known the value of our mineral resources. Our state is now sufficiently advanced to be able to avail herself, properly and with certainty, of the advantages alluded to, and there is every reason to believe, that these will not longer fail to command attention, and that the results will equal the most sanguine anticipations.

BELA HUBBARD, *Assistant Geologist.*

Report of S. W. Higgins, Topographer of Geological Survey.

Detroit, January 24, 1841.

To DOUGLASS HOUGHTON, *State Geologist:*

SIR—In fulfillment of your instructions, I have, in the present report, brought together such observations relating to the magnetic variation in this state, as will, I trust, assist hereafter in affixing data to important facts. Further developments will require a prolonged period and additional observations. But the readiness with which the direction of magnetic lines

Digitized by Google

may be ascertained, by the help of the solar compass, will render the labor and hazard of error a thousand fold less than any former method, and it is hoped that this compass will supercede everywhere, the necessity of depending alone upon the needle.

A great desideratum is obtained in having an instrument that will decide between antagonist forces, and indicate the inflections of magnetic lines, and determine mathematically, their amount.

From what has been advanced, an opinion is drawn in favor of magnetism being diffused throughout the particles which compose the mass of the earth, and against that of a magnetic nucleus at its centre. The modifications in the magnetic lines on the peninsula, are seen to be abrupt and irregular, where there are no indications of ferruginous matter, and in the absence of mountainous chains, equally as where mountains do exist.

But this subject when considered in connection with others, assumes no less importance. The changes which are silently and gradually progressing in the arrangement of the materials of the earth, are partly due to magnetic and electro-magnetic powers; other powers may co-operate in the production of general results, but the first are known to be active where there are metals and ores, and to these may probably be referred the arrangement and filling of mineral veins.

In an economical point of view, the level tracts and marshes in our state may be considered of great importance. Though the expense of clearing new lands is trifling, particularly our openings and plains, compared with the heavy timbered lands of the east, yet to drain the marshes and convert them into arable land, is still less expensive than either. There is little doubt of the success of operations in progress, by which many of them are becoming permanently dry, while others will require artificial aid. In either case large and valuable portions of the richest soil are reclaimed.

There appears to be throughout the state, a singular connection between the marshes and the openings and plains; where the one is found, the other is usually associated with it, while the timbered lands are comparatively free from either large or numerous marshes. The course of policy for the preservation of the timber on the openings, which must inevitably in time become lessened in quantity, while its value increases, is to adopt those modes which will most speedily recover the tracts under consideration, and thus prevent the waste of timber which cannot be replaced.

In the report which follows, and in which I have alluded to the above subject with others, I did not feel at liberty to extend my remarks further than a detail of facts.

Digitized by Google

VARIATION OF THE MAGNETIC NEEDLE.—*General law relating to magnetism—causes of the pertubations of the needle—experiment—opinion concerning local attraction—rule applicable in explanation of the needle's attraction on the peninsula—general correctness of the observation in the public surveys—example—conditions by which it is demonstrated—description of the line of no variation—its course independent—no correspondence in exterior lines—similar system of curves at Great and Little point aux Sable*—BURT'S SOLAR COMPASS—*Professor Loomis' report on annual changes in magnetic meridians—diffusion of magnetism, &c.*

The general law regulating the forces of magnetism, with its direction and intensity, has been untiringly studied, until by certain tests, it has at last been discovered that palpable effects are produced by the magnet on all substances whether organic or inorganic, and there seem to be only two ways of accounting for the phenomena: "either, that all substances in nature are susceptible of magnetism, or all possess particles of iron or some other magnetic metal, from which this property is derived."

The obvious pertubations of the needle, as seen in all situations at times, arise from many small causes combined, and which, so far as they exert their force, influence the greater power of terrestrial magnetism, whereby it becomes proportionably feeble, as these combinations are multiplied. Atmospheric changes operate still further, and in a more sudden manner, to effect the needle; but the first causes mentioned, are the most perplexing, and surveyors have attributed to local causes, that which is found to be inherent in all substances.

The following single experiment will evince how far local causes are concerned in general. If a small needle be constructed of any substance, and suspended between two magnets, it will be found to fix itself in a line in the direction of the poles of the magnets, and the number of oscillations in a given time, will usually determine in different needles, the quantity of matter susceptible of magnetism in each; thus an important discovery has been made by means of this active principle, whereby is detected the least insensible traces of iron, when all other tests have failed.*

The opinion, then is an erroneous one, that mineral must always be present in masses, to cause the aberrations of the needle. This is not necessary, nor is it the fact; for those minerals which are deeply buried can have no influence, inasmuch as their influence decreases inversely as the squares of the distance, and it may be said that the needle is wholly indeterminate in their neighborhood in respect to them, "since

*Professor Farrer.

Digitized by Google

the resultant of magnetic forces being then vertical," or nearly so, or nothing, "the horizontal element would be nothing."

If it is true, as has already been abundantly proved, that magnetism, electricity, and gravitation are governed by the same laws, and that they decrease in the ratio of the squares of their distances from attracting bodies, it becomes difficult to define what is meant by "local attraction," in the common acceptation of the term, unless it be granted that the regions where it has been met with so commonly, abound in ores, or metallic substances to a great extent, or that it has been the misfortune of the surveyor to come so nearly in contact with mineral masses, above or near the surface of the earth, as to occasion the utter temporary loss of the polarity of the needle.

It may be laid down as a rule, applicable hereafter in explanation of most of the deviations of the needle, which occur in the central and western portions of the state, (there being but few rocks in *situ* that appear on the surface, and those lime, slate and sand rock, and the geological structure of the peninsula, being such as to preclude all opinion of there being ores or metals, or any kind of minerals, except bituminous coal, marl, and the like, further than what is found in all alluvial and mountainless countries, and there being an utter impossibility of any masses other than what may be erratic, capable of producing any great effect;) that as the direction of the needle is the effect of a principal terrestrial force, its deviations arise only from those smaller secondary forces which we have said are inherent in all substances.

Many facts might be adduced in verification of the above supposition, from the thousands of observations which have been made during the course of the surveys of the public lands in the state. Entire lines have been measured from the southern to the northern boundary of the peninsula across its whole breadth on true meridians, and these lines have again been intersected by others running east and west, at right angles, each line having the magnetic variation recorded at intervals of every six miles, the points of intersection. Within the limits of these lines is included the whole area of the lower peninsula of Michigan, (and by an exact enumeration of the meanders of the coast, in the intervals between the terminations of these lines, is obtained with the greatest accuracy, the number of square miles it contains;) now, from the collected observations, after rejecting those east of the principal meridian, mentioned in my report of last year as erroneous—and a few others that might be specified which are made to correspond to the measurement of fractional lines—an area of 41,304 square miles, is laid out with the accuracy of a map, and the magnetic meridians traced with the same facility as any other known and prominent feature; in fact we have a magnetic chart, indica-

Digitized by Google

ting the declination of the needle, over this extensive region, on parallels of equal distances of six miles.

Let us pause here a moment to satisfy the inquirer, who may have doubted even the ordinary correctness of the observations, generally, obtained by the men whose duty it has been to establish the standard and other exterior lines in the survey of our state. To this end the two examples mentioned in another part of this report, will be sufficient, though, as I have stated, others might, with equal propriety, be adduced. One of the examples consists of forty-nine townships, and the other of fifty townships.

These examples are all verified by actual measurement, and, as it was to be expected, one of them falls a little short, and the other has an excess, only of five links in a mile, above the convergence which all meridian lines have when run north. Now, if an error, the gross of which should amount to 15', had been made in their observations, the result would be a departure from parallelism in the lines, of thirty-five links to a mile, whereas, the result exhibits an error of less than 2' to a mile.

Now, it is obvious from the foregoing, that there must be one of two conditions, which has given precision to the examples we have adduced; either the magnetic parallels have become greatly diminished in intensity, and accommodated themselves to the plane of astronomical longitude, or care and skill have been exercised to modify the effects produced by them.

The latter condition is the true one, as we shall shortly demonstrate. We begin, then, at a point where the line of no variation passes out of Lake Huron, and first touches the south side of Drummond island. This island is one of the northwesternmost of the chain of the Manitous which divide the waters of the straits of Ste Marie. It first touches the island near the meander post on the shore, between ranges 7 and 8 east, in township 41 north, and is the tangent point to a curve of 4¼ miles radius which it then makes on the island, the western extremity of the curve touching again the south shore of the island in the middle of the next township, in range 6 east; whence a reversed curve of 3¼ miles radius, approaches closely to the corners and one-fifth of a mile south of fractional township 41 and 42, ranges 5 and 6 east; thence on a course south 85° west, 6 miles, intersecting township line 41 between ranges 4 and 5, near the meander post, south shore of the island; which is another tangent point, to a curve, whose radius is 3¼ miles. Along this curve, at the distance of one mile, is the western end of the island, and at the meander post for fractional township 41 and 42, range 4 east; thence crossing the channel to the opposite side nearly, the curve terminates between Round island and the main land of the upper penin-

Digitized by Google

sula, one-fourth of a mile from the shore; thence another reverse curve of 2¾ miles radius, just sweeps along the edge of the shore, northward of Pointe de Tour, the western termination of the curve being in a lake, on the south-west corner of township 42 north, range 3 east; thence again the curve is reversed, whose radius is 2¾ miles, crossing the south boundary of the same township, 1¾ miles from its western boundary; whence the curve is again reversed, with a radius of 2¾ miles, passing off the coast into Lake Huron again, passing over one of the small islands near Massacre Island; thence ascending, it recrosses the south boundary of township 41 north, in range 2 east, between sections 33 and 34; thence curving north-westerly, with a radius of 6¾ miles, it crosses the town line between ranges one and two east, 1¾ miles from south boundary; still slightly curving northwardly, on a course of 12 miles, it crosses north boundary line of township 43, range one east; thence two miles it intersects Monusco bay, and curving westerly, leaves the water, and crosses the south-east corner of town 45, range one east, three-fourths of a mile from corner post, into town 45, range 2 east; thence curving with a radius of 6¾ miles, enters, at the mouth of the Miscota Sawgee river, the Canoe channel of the straits of Ste Marie, and crosses it about one mile above the Neebesh rapids in that channel, touching the most westerly point of Great Sailor's encampment island, and keeping the western and northern shore, with a curve whose radius is eight miles; here its course is again reversed, and beyond this we have no sufficient data to pursue it farther.

It is believed, however, to pass directly on to the south-west point of Sugar island, keeping along its westerly side, and crossing again the straits of Ste Marie on to the main land at the forks of the Montreal channel and Great Hay lake, five miles east of the Saut de Ste Marie; thence irregularly over the granite formations, and in conformity to the littoral features of Goulais and Batcheewauanung bays, touching Michipicoten harbor; thence, leaving the eastern end of Lake Superior, it has been said that it becomes forked, taking the circumference of Hudson's bay, or that the variation is the same on the eastern and western sides of the bay.

We have now followed it from Drummond to Sugar island, through its actual and determined course, leaving nothing to conjecture; and we remark, that for that distance, it is as well determined as any other ascertained line.*

This line, before touching Drummond Island, where we first commenced with it, may with almost equal certainty be traced down along its southern course in, and to the foot of Lake Hu-

* The hour should be noted as 10 o'clock, A. M., for observations on this line.

Digitized by Google

ron; although, for the reason that it is confined to the lake, we may not always ascertain its distance from the shore.

The course it would now take, in the diminished part of the lake, approaching the straits of Mackinac, would be somewhat analagous, it is presumed, to that in the straits of Ste Marie. This fact is proved from observation, first on the island of Mackinac, on the west, and along the north-east and east shore of the peninsula, south of and opposite Drummond Island. It makes a large curve, which approaches the end of the lake, without touching Mackinac, and receding from it, descends south-easterly to the termination on the coast, of the town line between ranges four and five east, in town thirty-six north, where the variation is 1° 55′ east. The same variation is found at the termination of town line thirty-four north, ranges six and seven east; thence east, eight miles, at Presque Isle, it is imperceptible. On Thunder bay point, it is 45′ east of the line of no variation, passing between the light-house on the outermost Thunder bay island, four miles from the shore, and this point; its course thence is to the outlet of the lake, near Fort Gratiot, where it crosses into Upper Canada.

From the fact that the line of no variation passing through a part of our state, we are in some measure better able to determine the *rationale* of another system of curves found elsewhere on the peninsula, particularly on its western side, at the Great and Little Point aux Sable, where a greater intensity is observable on approaching Lake Michigan from the east.

Under the ordinary ideas of magnetism, it would not have been believed that a line so curved as we have described, could have existed without ascribing its irregularity to some corresponding cause of local force.

Although the upper peninsula of Michigan differs from the lower, in regard to its geological features, the conclusion might be drawn that at the line of junction of the rocks of the Riviere Ste Marie, as described in your third annual report, where it is well defined as at, and through the outlet of the lake, the magnetic lines would be deflected, somewhat with the line of bearing of these rocks, in a distance of thirty miles; but its course on the contrary appears to be independent of them, crossing them at right angles, and without regard to their character.

Another peculiarity is, that corresponding curves, exterior to the line of no variation, on either side, bear no comparison. At the head of Great Sailor's encampment island, at the distance of two miles west, the variation is 1° 10′ east; and opposite the middle of the same island, at one mile east of the line, it is 40′ west; at five miles, 1° west, and at six miles 1° 10′ west; one mile south of Monusco bay, the distance of one and quarter miles east of it, the variation is 1° west; five miles

Digitized by Google

west, 2° 35′ east only, and the curve mentioned as again entering the lake between towns two and three, as well as the curve which passes around the edge of the shore above Pointe de Tour, have no variation at their centres, but on approaching either way, east or west, variation increases to 30′, and then again decreases to 0, on touching the line of the curve.

The same peculiarities are observed on the western side of the lower peninsula, particularly at Great and Little Pointe aux Sable, where the intensity increases, and the curves, though larger, exhibit as little conformity. It is evident that the needle "hauls to the land," to use a nautical phrase, for at these points, the increase of variation amounts to 3° in thirty miles, exceeding 6° at the points, while the increase is but 1° for the whole breadth of Lake Michigan; the variation being but 7° in Wisconsin, on the opposite shore.

The instrument used in ascertaining the particulars we have been stating, is one totally different in its principles and construction from the common compass, and is not even dependent for its accuracy on the needle. It was invented by Judge Burt, of Macomb county; and the Messrs. Burts have given me the results of observations made by them with this instrument, during most of the last summer. The needle is used with this compass only when the sun is obscured by clouds; when the sun shines, the needle is screwed fast, and the time then consumed in obtaining the true meridian, is not longer than that ordinarily taken by a needle to settle, while it is infinitely more correct.

I had intended to have given a description of this valuable invention, but to do this clearly, without an accompanying drawing, was found impracticable. It is called the "SOLAR COMPASS," and consists chiefly of three arcs, one of which is graduated to the ecliptic, the other to the complement of latitude, and the third to the sun's declination, whereby, if the latitude be known, the others are known, viz: the sun's declination, and the apparent time, and consequently the magnetic variation; or if the sun's declination only be known, then the latitude, and the others are known; or if the time be known, the others can be ascertained by an almost instant adjustment.

We have not only now been enabled to adduce facts confirmatory of the general principles of terrestrial magnetism, but to enter considerably into detail on the subject of magnetic variation. A variety of reasons seemed to require this, the principle of which was, the definite course obtained of the line of no variation, and the consequent illustration of other lines on either side of it being also irregular; demonstrating a system of curves, and a series of distinct and separate centres of

Digitized by Google

attraction. This has been effected over no very limited space, and is free from all that might be considered empirical.

It is believed that in accuracy and fullness of detail, these observations exceed all that has been hitherto attained, nor am I aware that the line of no variation was ever before traced continuously for any great distance, or that other observations have been taken, than at these points, where it has been crossed by the surveyor or mariner.

It has been pretty well determined by professor Loomis, of Western Reserve college, Ohio, that the "present annual changes of variation, caused by the retrograde motion of the needle, which commenced every where as early as 1819, and in some places as early as 1793, is about 2′ for the southern states, 4′ for the middle and western states, and 6′ for the New England States." This is true in general of the magnetic lines in this state where they are at a distance from the line of no variation, as at Detroit. Here the decrease or amount of retrograde motion is 4 4-10′ annually; the line of no variation has been quite stationary, at least for the last eight years, at points where it was known at that period. While, therefore, we observe a greater intensity, as we approach nearer to the line of no variation, we likewise observe the distance to increase between the lines of equal variation, and while the first is stationary, the latter is retrograding.

While the parallelism which takes place in needles, proves that the magnetic force of the terrestrial globe may, like that of gravitation, act in parallel lines, we see also an exception. The lines of gravitation are always perpendicular to the surface of the sphere, while the lines of magnetism, which like gravitation, never cross each other, are composed of every variety of curve.

Though the diffusion of magnetism be general, it is by no means equal. It is found at the equator and at the poles, an interposed space equal to the earth's radii, and for this space no loss is apparently felt in its force, and it is not more difficult to conceive an exerting force through this, or a greater interposed space, than that the hand should communicate motion to a stone, with which it is demonstrably not in contact.

If, then, magnetism be a real power, at what distance does it terminate? can we give it an inferior level, and determine its final bounds, connected with solar light and heat? does it not emanate from, and is it not governed by that great central source, the sun, which controls the more palpable and grosser materials of which the planetary system is composed, which effects every change either in the interior or exterior of this globe, and to which every element is subject, and by which are conducted in silent processes, all changes and revolutions, since time began?

Digitized by Google

Diurnal Variation.

The following table of diurnal variation was sent to me by honorable William A. Burt, who is in the constant practice of keeping a meteorological table in connection with his observations on the magnetic variation; the results are the same as noticed in my former report, though not then in detail. These observations were made in lat. 42° 43′, N., long. 5° 24′ 30″ west, from Washington.

Digitized by Google

Table of Diurnal Variation, taken in Macomb County, Michigan.

1839.		Thermometer.			Weather.		Magnetic variation.			
Day.		5½ A. M.	1 P. M.	6½ P. M.	A. M.	P. M.	Winds.	5½ A. M.	1 P. M.	6½ P. M.
July	13	60°	79°	62°	Clear.	Light showers.	W. S. W.	1° 42′	1° 28′	1° 42′
	14	59°	72°	67°	do	Flying clouds.	N. W.	1° 42′	1° 26′	1° 33′
	15	at 5, 53¾ at 6, 58	73°	64°	Cloudy.	Light showers.	N. W.	1° 32′	1° 28′	1° 28′
	16	55°	71°	66°	do	Some cloudy.	W.	1° 38′	1° 28′	1° 30′
	17	52°	80°	69°	Clear.	Clear.	W. N. W.	1° 30′	1° 28′	1° 30′
	18	55°	85½°	83°	do	do	W.	1° 41′	1° 28′	1° 35′
	19	56°	89°	82°	do	Flying clouds.	S. W.	1° 40′	1° 28′	1° 35′
	20	63°	80°	74°	do	Cloudy.	S. S. W.	1° 40′	1° 25′	1° 35′
	21	70°	82½°	77°	do	do	S.	1° 42′	1° 28′	1° 30′
	22	72°	86°	75°	Cloudy.	Some cloudy.	W.	1° 40	1° 28′	1° 35′
	23	65°	88°	77°	Clear.	Clear.	E.	1° 41′	1° 23′	1° 36′
	24	72°	86°	77°	Rain.	do	W. S. W.	1° 43′	1° 25′	1° 35′
	25	69°	83°	80°	Clear.	do	N. W.	1° 41′	1° 15′	1° 32′
	26	66°	88°	79°	do	Cloudy.	W.	1° 40′	1° 23′	1° 35′
	27	50°	80°	76°	do	Showers.	W.	1° 41′	1° 30′	1° 37′
	28	64°	86°	80°	do	Clear.	W.	1° 42′	1° 24′	1° 30′
	29	66°	87°	78°	Cloudy.	do	W.	1° 41′	1° 21′	1° 30′
	30	69°	90°	79°	Clear.	Showers.	W.	1° 41′	1° 25′	1° 33′
	31	62½°	76°	72°	do	Clear.	W.	1° 40′	1° 24′	1° 33′
August	1	48°	79°	76°	do	do	W.	1° 40′	1° 24′	1° 28′

Digitized by Google

Note.—July 19, at 12 h. 30 min. P. M., variation 1° 10′; at 12 h. 45 min., var. 1° 15′; at 1 h., var. 1° 28′. July 24, at 6 h. 10 min. P. M., shower commences, var 1° 35′; at 6 h. 40 min, shower past, var. 1° 25′. July 27, at 5 h. 45 min. P. M. shower rising, var. 1° 47′; shower past, var. 1° 37′.

COUNTY SURVEYORS—*law respecting them—Judge Burt's compass—magnetic meridians—disappearance of original lines.*

From the statute* regulating the duties of county surveyors, it becomes indispensable to possess themselves of one of Burt's solar compasses; for it is made their duty to be acquainted, before entering upon a survey, with the absolute variation of the needle, at the time and place where the survey is to be made, and to note the same upon their certificates, and no returns are either lawful or can be received as evidence in any court, without it. It may be supposed that this might be dispensed with, when it is known that the surveyor in the subdivision of a section, must be governed by the section and quarter section posts already established, and that the business of dividing a section, therefore, is merely intersecting these posts with his line, without the power to change them when wrong; and when smaller divisions are required, of taking equal distances between them, whether the full complement of acres be wanting or otherwise.

But though most surveyors have a meridian line for their own accommodation, generally in their immediate neighborhood, from which they can determine the magnetic changes, yet when their duties require them in opposite parts of a county, where the variation not unfrequently differs a degree, it is obvious that time must be devoted to an observation of some star to obtain the variation, if it be a clear night, or if otherwise, the survey must be suspended until a more favorable time. Besides all this, his pay is fixed at a stated price per mile, and that price barely a compensation. Now, either to make the business desirable, and at the same time to fulfill the conditions of the law, he must have a ready method of getting the variation, or must spend his time in so doing, without an equivalent for his labor; and while the law remains as it is, no instrument besides the solar compass can enable the surveyor, with profit, completely to fulfill the intent of the statute.

This question is of no less importance now, than it will be

* Part first, title second, chapter third, section sixty-nine, revised statutes. In all surveys made as aforesaid, the course shall be stated, according to the true meridian, and the variations of the magnetic meridian shall also be stated, with the day, month and year.

SEC. 70. The surveyor and his deputies may demand and receive for their services, the following fees, to wit: for each mile actually run with the compass, and measured with the chain, three dollars: *Provided*, That the necessary chainmen and markers be furnished by the surveyors or his deputy, at the request of the parties requiring the survey; but if the chainmen and markers are furnished by the party for whom the survey is made, or if the chainmen and markers be not necessary, then the surveyor and his deputies shall recive for each mile run, seventy-five cents, &c.

Digitized by Google

in future, when all traces of the original lines shall have been lost, which is the case already, wherever the county has become settled, and roads or fields have been opened along the boundaries of section lines.

AREA OF THE LOWER PENINSULA OF MICHIGAN—*former maps and descriptions erroneous—definite information now obtained.*

We have now the means of ascertaining, with the utmost degree of accuracy, the precise area of the lower peninsula, an accuracy characteristic of the plan pursued where the general government has the control of the surveys. These surveys afford the greatest facility in determining the boundaries and extent of every portion over which they have been made, from an eighty acre lot to a whole territory; and such has been their progrees within the last three years, that there remains only the small fraction of thirty-six townships unsub-divided; but these, being mostly in the interior, present no difficulty in determining at once the exact number of square miles contained within the boundaries under consideration. I have with extreme care, multiplied together every fraction, and find the whole amount to be 41,304 square miles or 26,434,560 square acres.

In giving the above estimate, we cannot avoid the opportunity of confronting its results with the compilations of draftsmen and geographers, who, in relation to the peninsula, have heretofore, in the main, copied such estimates as have fallen in their way, whether right or wrong. But little care has been exercised, even by those who ought to have been better acquainted with the errors which have always characterized not only the maps, but the descriptions of the peninsula. It is to be hoped that the period of such errors is now past, and that while most existing publications become obsolete, they will be rĕplaced by correct ones; for it is not too much to say, that *now*, not only correct, but precise and definite information can be obtained, and wherever a dependence shall be placed upon former maps and descriptions, so far will their numerous and universal mistakes be the means of leading into important errors.

ELEVATION AND DEPRESSION OF THE WATER IN THE GREAT LAKES—*the maximum for* 1838, 1839, *and* 1840—*lowest stages of water of longer continuance than the higher stages—evaporation—semi-annual alternations—effects of winds—the apparent tides fortuitous—reaction of the waters—table of elevation and depression for* 1840.

The last year is the second since the unusual elevation of the waters of the lakes; since which time there has been yearly

Digitized by Google

a remarkable coincidence in the ration of their subsidence, the more unlooked for, when taken in connection with the causes which tend to equalize the amount of falling water, in the form of rain, snow, and dew, with the constant action of evaporation.

In bodies of water like these lakes, slight changes in the seasons produce visible effects, inasmuch as they have no equalizing under-currents.

The quantity of rain must have been much less, and the evaporation more, than for many years past, to have produced the decrease mentioned below. This decrease amounts in the first year to one quarter of the total rise, and in the second to one-half, making the proportion each year as thirty-three to forty-four nearly.

The maximum of August, 1838, was five feet three inches above that of 1819; that of 1839, three feet eleven inches; and that of 1840, two feet seven and one-half inches. The ratio of decrease, therefore, between the highest water in 1838 and 1839, is one foot four inches; and between the highest water in 1839 and 1840, one foot three and one-half inches.

Its rate of decrease is much more rapid than that of its increase from 1819 to 1838. In 1830 it was only two feet above the level of 1818; in 1836, three feet eight inches; having risen one foot eight inches in six years. In 1837, it was four feet three inches, increase, seven inches; in June, 1838, five feet; increase, nine inches; and in August of the same year, five feet three inches. Having been nineteen years in attaining the maximum of five feet three inches, and only two years in reducing that height one-half, or to the average year of 1833. Thus the rapidity of its decrease in two years, equals the increase of five years.

I have not been able to ascertain whether the decrease of former years was thus sudden, or whether the period of the minimum, or lowest stage of water, continues for any great length of time; it is quite probable, however, that it does, and that the overflowing of the lands caused by the maximum rise, is but temporary, and only for one year, whence immediately commencing its decrease, it arrives very soon at its former standard, and remains there with little variation. Indeed, this is the more probable, from the example of the last three years, and from the appearance of long and undisturbed processes in the growth of trees and vegetation, with the formation of permanent channels in the interim, as well as the security felt by those who have erected buildings and planted orchards formerly, upon those lands which were inundated.

The diminution in a given quantity of water, exceeds by evaporation, all the supplies which it receives from rain, that is, the average amount of falling water, is equal per year to

Digitized by Google

33 inches; evaporation will reduce it to 44 inches, when fully exposed to the sun and air. One season of extreme drouth would, upon the expanse of these lakes, produce an extreme depression, while the contrary would have the effect of producing a corresponding rise. It cannot be a matter of so much astonishment that such expanded areas of water, subject to such influences, should be greatly effected; the wonder is, that they do not oftener present greater fluctuations than they do, the equal and almost unvarying stage at which we find them, is due to the uniformity of the seasons, and the systematic order in which nature is conducted in all her works.

The semi-annual alternations observable in summer and winter, arise from other and well known causes. In summer, the supply is unchecked, and the consequence is, an increase to the height of 30 inches, or thereabouts; when in winter, these supplies are again checked, a consequent depression follows. Measurements to ascertain exactly these semi-annual fluctuations, have never been thought necessary. Besides, it is not uncommon for ice, in large bodies, to collect at the outlets of the lakes, and, for the time, prevent the usual discharge, and a lower stage of water, is the consequence, than otherwise would be. When this occurs in the chain of lakes, as it frequently does at the outlet of Lake Huron, in connection with a west wind, as in 1824 and 1831, it diminished the depth of the Detroit river, opposite the city, to over ten feet, widening the beach more than twenty rods, and making it practicable, (except in the immediate channel,) to cross without danger, on foot, from the American side to Isle au Cochons or Hog Island; and a further proportional decrease took place in lakes Erie and Ontario, while the pent-up water flowed back into lakes Huron and Michigan. For these reasons, and the want of uniformity in the temperature of the winter months, the minimum height is not to be depended upon.

Besides all this, the effect of winds sometimes acts in favor, as well as against the other irregularities. The geographical position of the lakes is such, as that, allowing them to prevail from the same point, at the same time over them all, (which is, by no means, always the case,) they produce a variety of results. A west wind forces the water of Lake Erie into the Niagara river, at the same time, the waters from the foot of lakes Huron and Michigan are forced into the straits of Mackinac, and these again are met by the waters of Lake Superior, through the straits of Ste Marie. Hence the straits which connect lakes Huron and Erie, have all the indications of a tide, though irregular as to time, as well as to the amount of its elevation and depression, and it has often both rose and fell in about the same proportion, and sometimes in the same period, as the lunar tides in those rivers which empty into the

Digitized by Google

ocean. But whenever these tides take place, either in the lakes themselves or in the straits connecting them, they are fortuitous, and are the results of accidental disorder, common throughout the lake region.

Another feature may be observed of the lakes, different in nothing from the *ground swell of the ocean*—the rëaction of the water, after having been pressed by the wind for a few days or hours in one direction.

The most favorable points for noticing this rëaction, is at an inlet or bay; Lake Superior, which has the largest surface, presents the most marked traits. Here, while the explorations by the geological corps were in progress, the past season, at the mouth of Grand Marrais river, which empties into a bay one mile wide and two miles long, having an outlet of a quarter of a mile wide into the lake, was observed the returning waters from the west, in wide undulations. The effect upon the smooth surface of the bay was a gentle elevation, which arose to one foot or more for a period of fifteen minutes, then subsiding, again returned at equal intervals of time, until the lake, after a lapse of a few hours, resumed its natural level.

Digitized by Google

Table of elevation and depression in the waters of the Lakes, compared with that of June 1, 1839.

					Ft.	In.	Ft.	In.
1838.	August	21,	Highest stage of water,				5	3
1839.	January	1,	Decrease,		3	8	1	7
	July	31.	Highest stage,				3	11
1840.	January	30,	Decrease,		3	2		9
	July	4,	Highest stage,				2	7½
1841.	January	1,	Decrease,		2	1		6½

DETAIL OF THE ELEVATION AND DEPRESSION FOR 1840.

					Ft.	In.			
1840.	January	30,	Height of water,						9
	April	25,	Increase,		1	5	2	2	
	May	9,	"	Rain and wind from N. E., fluctuations 15 to 18 in.		1½	2	3½	
	"	19,	"	Same,		1½	2	1½	
	June	8,	"	Wind west, season dry and hot,		1	2	4½	
	July	4,	"	Light showers, weather same as last observation,		3	2	7½	2 7½
	"	22,	Decrease,	Much rain in June and July, on Lake Superior,		3½	2	4	
	September	1,	"	Season dry, little rain,		2	2	2	
	"	13,	"			½	2	1½	
	"	20,	"	Wind west, river fell suddenly,		4½	1	9	
	October	1,	Increase,	Heavy rain last 24 hours,		4	2	1	
	"	12,	Decrease,			3½	1	9½	
	"	29,	"	Moderate,		½	1	9	
	November	10,	Increase,	do		1½	1	10½	
	"	24,	Decrease,	Freezing, wind moderate from west,		4½	1	6	
	December	10,	Increase,	Ice made in river in considerable quantities,		½	1	6½	
	"	21,	Decrease,	River blocked up by ice, no wind,		2	1	4½	
1841.	January	1,	"	River nearly closed, wind moderate from west,		10		6½	6½

Digitized by Google

MARSHES—*their origin—once inhabited by the Beavers—their enlargement and diminution—other causes of their production—without timber—their uses—marl—peat—rich soil—cause of the subsidence of the water on them—instances of their becoming dry—causes still in operation—irreclaimable marshes.*

It is perhaps a matter of less difficulty than is generally supposed, to account for the existence of most of the marshes that so abound in this and other portions of the west. We may consider them as level tracts, so continuous often as to be but little broken for many miles, and which expand, or become narrow as the base of the hills and higher grounds, approach or recede; while the latter seem to stand as distinct and sharply defined as islands, whose shores are fringed by a line of timber, and whose foliage waves over the tall grass beneath, and which borders the very margin of this timbered belt, at times receding like deep indented bays, and again projecting in detached islands, and peninsula points, not unlike the meanders of an actual arm of the sea or lake—the level grassy surface being substituted for their waters.

Most of the marshes, however extensive, were once the habitation of the beaver, and were nothing more than expanded and shallow lakes of water. The stream that is now found universally to flow through them, was anciently at a lower level, which is sufficiently indicated when the depth of vegetable mould is penetrated and the former surface exposed. This depth is found to vary from one to many feet.

From the well known habits of the beaver, we may suppose their first labor was to raise a dam sufficiently high to protect them from attacks by land, and as the bottoms of the lakes became filled up by the decay of grass and roots, an additional elevation of the dam became necessary, and this gave a greater area to the lakes, which continuing to spread, the adjacent land whose relative level could be but little above the ordinary banks of the stream, was overflowed, leaving those islands, bays, and peninsula points we have alluded to, to give an indescribable beauty to the landscape.

A process of enlargement or diminution of the marshes, is constantly going on according as the original cause is either operating or has ceased; the latter is the case within, and to a great extent around, the neighborhood of permanent settlements. The beaver is nowhere to be found, excepting at the sources of Thunder bay river, and some other minor streams, on the lower peninsula; but Mr. Burt informs me that he found them within twelve miles of the coast north of Mackinac, in considerable numbers, where they had newly inundated the country to the depth of several feet.

Another cause of the stoppage of the streams, is the falling

Digitized by Google

of timber across them, which becomes permanently fixed by the superincumbent pressure of the waters.

A long series of years, if not ages, must have elapsed to produce the filling up of these ponds by the decayed vegetation, and the destruction of so large a body of timber as that which once covered the ground they occupy, little or no vestige of these forests remaining, even of a fossiliferous character.

The benefit of these marshes to the country, consists not altogether in their picturesque and verdant appearance, or in the rural charm with which nature clothes them, so far from being practically useless, they, in great measure have, to this day, been the pasture grounds of the domestic herds, which otherwise could not have been supplied in the first settlement of the country. Their first use has been to sustain, by their spontaneous crops, the dependent husbandman, placing him beyond the care and labor of opening new fields for his supplies.

Another value, which will hereafter be better known and appreciated, is derivable from the immense beds of marl, so universally found in them; with its uses, as a cement and manure, thousands are already acquainted. It is well known to be peculiarly adapted to our soil as a manure, and its quantity is inexhaustible.

Another characteristic production of the marshes, is the peat with which they abound; this may in future be found useful as a fuel, and may supply the place of that article when other sources are exhausted.

Nor need I here announce, what is so well known, (and which results from the fact of the composition of the soil, being made up wholly of decayed vegetation,) their surpassing richness, or that when, by artificial drains, or otherwise, they have been made arable, the experiment of planting and sowing for years, has attested them the most valuable and enduring lands in the state. So much is this the case, that their acquisition by those who understand them best, is more eagerly sought for than the richest of the woodland.

Numbers have yearly become dry, so as to be brought under cultivation, which have heretofore been known only as wet meadows, and where their yielding oozy muck could with difficulty be made to support the weight of a man, they have now no other water upon them than the original stream, and that no longer spreading over the whole surface as formerly, but confined to its proper channel.

The causes which will ultimately have a tendency to drain the great portion of them, is slow in its operations, but nevertheless, is sure. The operation may be expedited by artificial means; either, by straightening the usual serpentine course of the streams, or by enlarging their outlets, or which is the most effectual method, by removing the embankment, or beaver dam.

Digitized by Google

These may, in almost all cases, be found by examination, though they are in a measure concealed, from the long period of their standing, and the materials of their construction, having become overgrown and covered with rank grass and mould, accumulated through long periods of years.

The law of fluids—the property of water to preserve its level—the natural and uniform effects when opportunity can be given for its operation, in level and sunken districts, will drain the superfluous waters from a higher to a lower level, leaving the surface dry. Thus, as I am informed, parts of the extensive meadows on the river road, in the southern towns of Shiawassee county, for miles, have the last year produced for the first time, crops of wheat, which, under my own observation, three years ago, were too wet to allow of crossing upon them; and in the adjoining townships, in the northern parts of Livingston county, small lakes have altogether disappeared. On the farm of Gen. Van Fossen, two of these lakes contained about three-quarters of an acre each, and were intended expressly for stock water for his cattle; these and several small marshes in the same county, have all since become fields. The marshes, in these instances, were all drained by the natural decay of old dams, or the wearing effects of the waters, in deepening the channel, and thus returning to their ancient level.

Further instances might be noticed, occurring in several counties in this state. In Branch county, several former marshes have actually emerged from a depth of two feet below the surface of the water. In these cases, the relative level has so changed within about seven years, as to be at present at a height of two feet above the water.

Here a second cause has been operating with the first, and which has given a greater rapidity in producing the effects we have mentioned, that is, the preservation from fire of the crops of wild grass; for if this is allowed to fall and decay, the continued accumulations formed by it, will have a tendency to alter and raise the level yearly, and but a short period of time will be necessary to complete the process.

Trees of a deciduous growth can never be supposed again to grow upon them, and hence they will always have the appearance that *natural prairies* present, with the advantages of a uniformly rich soil, which all natural prairies have not. They will likewise necessarily always receive the wash of the higher grounds.

Suggestions in relation to the cause of the late gradual decrease of the waters of the great lakes, in connection with the disappearance of these smaller lakes and drying of the marshes, have been offered, attributing both to the changes in the seasons only, so that a recurrence of circumstances hereafter

Digitized by Google

that shall produce a rise similar to the one of 1838, in the great lakes, will also, it has been supposed, produce a similar submergence of the marshes, and fill again the small lakes. But I apprehend there is no connection between the causes which have acted on the one, and those which have effected the other. It is true that the three thousand interior lakes, especially those of any considerable magnitude, have had their ebbs and flows in the same ratio, and at the same time and from the same causes, as the great lakes; but it should be remembered that no new instances of marshes being formed, have been discovered, but on the other hand, when the waters of the lakes were rising for years, and were at their maximum, an equal progressive subsidence was taking place in the waters of the marshes.

The number of irreclaimable marshes is comparatively few, and their areas are circumscribed to the dimensions of the lake which originates them, and to the basins which inclose them. In the first case the lake is central and cannot be approached; the vegetation which had taken root in their margin, has been so often reproduced, as to contract the actual dimensions of large lakes, and confine the remaining open space of water to a small extent. This is in consequence of a floating, buoyant covering, fixed by the fibres of roots, which, having been first supported by and around the shore, has, in deep water, no other support than what the surface of the lake itself affords. Hence, where these lakes become entirely covered over, as in Sanilac, Cheboygan and Presque Isle counties, and in some other instances, to a greater or less extent, the weight of a man causes a depression and a wave-like and trembling motion to some distance round. The surveyor, who is often compelled to cross them, well knows the feelings of insecurity they create. It may not be said of them, as was said by some travelers from London, on their journey to the north, who, on arriving at Dumfrieshire, in Scotland, concluded, from the appearance of the mountains there, that *the world was finished no farther*, and returned quietly home.

These subterranean lakes are nothing less than immense reservoirs of water; their coolness and purity exceed those whose surfaces are exposed, and being fed by springs, also serve as fountains to streams that rise in distant places.

S. W. HIGGINS,
Topographer to Geological Survey.

Glossary, including the technical terms used in this report.

Alluvial. The adjective of Alluvium.

Alluvion or Alluvium. Recent deposits of earth, sand, gravel, mud, stones, peat, shell banks, shell marl, drift sand, &c.,

Digitized by Google

resulting from causes now in action. This term is generally applied to those deposits in which water is the principal agent.

Allum rock. Rocks, which, by decomposition, form alum.

Amorphous. Bodies devoid of regular form.

Amygdaloid. A trap rock which is porous and spongy, with rounded cavities scattered through its mass. Agates and simple minerals are often contained in these cavities.

Anthracite. A species of mineral coal, hard, shining, black and devoid of bitumen.

Anticlinal. An anticlinal ridge or axis is where the strata along a line dip contrariwise, like the sides of the roof of a house.

Arenaceous. Sandy.

Argillaceous. Clayey.

Augite. A simple mineral of variable color, from black through green and gray to white. It is a constituent of many volcanic and trappean rocks, and is also found in some of the granitic rocks.

Avalanche. This term is usually applied to masses of ice and snow which have slidden from the summits or sides of mountains. It is now applied to slides of earth and clay.

Basalt. One of the common trap rocks. It is composed of augite and feldspar, is hard, compact, and dark green or black, and has often a regular collumnar form. The Palisades of the Hudson show the columnar aspect of trap rocks. The Giants' causeway is cited as an example of basaltic rocks, and the columnar structure is there very strikingly displayed.

Bitumen Mineral pitch, which is often seen to ooze from fossil coal when on fire.

Bituminous Shale. A slaty rock, containing bitumen, and which occurs in the coal measures.

Blende. Sulphate of zinc. A common shining zinc ore.

Bluffs. High banks of earth or rock with a steep front. The term is generally applied to high banks forming the boundaries of a river or river alluvions.

Bog Iron Ore, Ochre. A variety of ore of iron which has been deposited by water. Chiefly in low, wet ground.

Botryoidal. Resembling a bunch of grapes in form.

Bowlders. Erratic group. Lost rocks. Rocks which have been transported from a distance, and more or less rounded by attrition or the action of the weather. They lie upon the surface or loose in the soil, and generally differ from the underlying rock in the neighborhood.

Breccia. A rock composed of angular fragments cemented together by lime and other substances.

Calc Sinter. A German term for depositions of limestone from springs, and waters which contain this mineral in solution.

Digitized by Google

Calcareous Rocks. A term synonymous with limestone.

Calcareous Spar. Crystalized carbonate of lime.

Carbon. The combustible element of coal.

Carbonates. Chemical compounds containing carbonic acid, which is composed of oxygen and carbon.

Carbonic Acid. An acid, gaseous compound, incapable of supporting combustion, and deleterious to animal life. It is common in caves and wells, and many incautious persons lose their lives in consequence of descending, without first ascertaining its presence by letting down a lighted candle. Man cannot live where a candle will not burn freely.

Carboniferous. Coal bearing rocks. This term has been applied to formations belonging to an ancient group of secondary rocks which contain coal. The term is now used in a more enlarged sense, and may be applied to any rocks containing coal.

Chalybeate. Impregnated with iron.

Chert. A silicious mineral approaching to chalcedony, flint and hornstone. It is usually found in limestone.

Chlorite. A soft green scaly mineral, slightly unctious.

Chloritic Slate. Slate containing chlorite.

Clinkstone. A slaty feldspatic or basaltic rock, which is sonorous when struck.

Cleavage. The separation of the laminæ of rocks and minerals in certain constant directions. They are not always parallel to the planes of stratification, but are often mistaken for them.

Coal formation. Coal measures. These terms are considered synonymous, and refer to the great deposit of coal in the older secondary rocks, which has been called the "independent coal formation." There are, however, deposits of carbonaceous matter in all the geological periods, and several of them might also be called coal formations.

Conformable. When strata are arranged parallel with each other, like the leaves of a book, they are said to be conformable. Other strata lying across the edges of these may be conformable among themselves, but *unconformable* to the first set of strata.

Conglomerate, Crag, or Puddingstone. Rocks composed of rounded masses, pebbles and gravel cemented together by a siliceous, calcareous, or argillaceous cement.

Cretaceous. Belonging to the chalk formation.

Crop out and *out crop.* Terms employed by geologists and mining engineers, to express the emergence of rock, in place, on the surface of the earth at the locality where it is said to crop out.

Crystaline. An assemblage of imperfectly defined crystals, like loaf sugar and common white marble.

Digitized by Google

Delta. Alluvial land formed at the mouths of rivers.

Denudation. A term used to express the bare state of the rocks over which currents of water have formerly swept, and laid the rocks bare, or excavated them to form valleys of denudation.

Deoxydize. To separate oxygen from a body.

Detritus and *Debris.* Broken and removed portions of rock which have been operated upon by waters or the atmosphere; frequently transported by currents to great distances.

Dykes. A kind of vein intersecting the strata, and usually filled with some unstratified igneous rock, such as granite, trap or lava. These materials are supposed to have been injected in a melted state into great rents or fissures in the rocks.

Diluvium and *Diluvion.* Deposits of bowlders, pebbles and gravel, which many geologists have supposed were produced by a diluvial wave or deluge sweeping over the surface of the earth.

Dip. Where strata are not horizontal, the direction in which their planes sink or plunge, is called the direction of the dip, and the angle of inclination, the angle of dip.

Dolomite. A magnesian limestone belonging to the primary class. It is usually granular in its structure, and of a friable texture.

Dunes. Sands raised into hills and drifts by the wind.

Earth's Crust. The superficial parts of our planet which are accessible to human observation.

Embouchure. From the French, signifying mouth or entrance, (of a river.)

Eocene. The strata deposited during the oldest of the tertiary epochs, as for example, the Paris basin.

Estuaries. Inlets of sea into the land. The tides and fresh water streams mingle and flow into them. They include not only the portion of the sea adjacent to the mouths of rivers, but extend to the limit of tide water on these streams.

Exuviæ. In geology, fossil remains.

Fault. A dislocation of strata, at which the layers on one side of a dyke or fissure have slid past the corresponding ones on the other. These dislocations are often accompanied by a dyke. They vary from a few lines to several hundred feet.

Feldspar. One of the simple minerals, and next to quartz, one of the most abundant in nature.

Ferruginous. Containing iron ore.

Fluviatile. Belonging to a river.

Formation. A group of rocks which were formed during a particular period, or which are referred to a common origin.

Fossils. The remains of animals and plants found buried in the earth, or inclosed in rocks. Some of these are but slight-

Digitized by Google

ly changed, others are petrified and the organic rĕplaced by mineral matter; some have decayed and left the impression of the bodies, while others have been formed by mineral matter deposited in the cavities left by the decay of the organic body. These last are called *casts*. The term petrification is applied to those cases, in which organic matter has been rĕplaced by mineral substances. The form and structure of the original body both remain. In casts, the exterior form alone is preserved. Fossils are also called organic remains.

Fosiliferous. Containing organic remains.

Galena. An ore of lead composed of lead and sulphur.

Garnet. A simple mineral, which is usually red and crystalized. It is abundant in most primitive rocks.

Gneiss. A stratified primary rock, composed of the same materials as granite, but the mica is distributed in parallel layers, which will give it a striped aspect.

Geode. Geodiferous. Geodes are small cavities in rock, generally lined with quartzose or calcareous crystals.

Geology. A science which has for its object to investigate the structure of the earth, the materials of which it is composed, the manner in which these are arranged, with regard to each other; and it considers the action of all natural causes in producing changes, such as the effects of frost, rain, floods, tides, currents, winds, earthquakes and volcanoes.

Economical Geology refers to the applications of geological facts and observations to the useful purposes of civilized life.

Granite. An unstratified rock, composed generally of quartz, feldspar and mica, and it is usually associated with the oldest of the stratified rocks.

Graywacke, Grauwacke. A group of strata in the transition rocks; but the term has been so indefinitely applied, that other names will probably be substituted.

Greenstone. A trap rock composed of hornblende and feldspar.

Grit. A coarse-grained sandstone.

Gypsum. A mineral, composed of sulphuric acid and lime, and extensively used as a stimulant manure, and for making stucco and plaster casts, &c. It is also called plaster of Paris.

Hornblende. A mineral of a dark green or black color, and which is a constituent part of greenstone.

Hornstone. A silicious mineral, approaching to flint in its character.

Hydrography. A science which considers the waters of the globe, principally as relates to navigation, tides, currents, soundings, charts of coasts, &c.

In situ, In place. In their original position where they were formed.

Digitized by Google

Kidney Ironstone. A variety of ore of iron which receives its name from the somewhat kidney shaped masses in which it occurs. It accompanies the rocks of the *carboniferous group.*

Laminae. The thin layers into which strata are divided, but to which they are not always parallel.

Lacustrine. Belonging to a lake. Depositions formed in ancient as well as modern lakes, are called lacustrine deposits.

Landslip. It is the removal of a portion of land down an inclined surface. It is in consequence of the presence of water beneath, which either washes away the support of the superincumbent mass, or so saturates the material, that they become a slippery paste.

Line of bearing, is the direction of the intersection of the planes of the strata with the plane of the horizon.

Linear survey. A plan of surveying adopted by the United States government, by which the public lands are divided into rectangles by straight lines.

Lignite. Wood naturally carbonized and converted into a kind of coal in the earth.

Littoral. Belonging to the shore.

Loam. A mixture of sand and clay.

Magnetic Meridian. A great circle passing through or by the magnetical poles of the earth; to which the *compass needle*, if not otherwise hindered, conforms itself. This "line of no variation," is not stationary, but shifts eastward or westward of the true meridian, during a term of years.

Mural Escarpment. A rocky cliff with a face nearly vertical like a wall.

Mammillary. A surface studded with smooth small segments of spheres like the swell of the breasts.

Mammoth. An extinct species of elephant.

Marl. By this term an argillaceous carbonate of lime is usually implied. By custom, its signification is much more extended, and means mineral substances, which act as stimulating or fertilizing manures. There are clay marls, shell marls, and various others.

Marly Clay. Clay containing carbonate of lime.

Mastodon. A genus of extinct fossil animals allied to the elephant. They are so called from the form of the grinders, which have their surfaces covered with conical mammillary crests.

Matrix. The mineral mass in which a simple mineral is imbedded, is called its *matrix* or *gangue.*

Mechanical origin, Rocks of. Rocks composed of sand, pebbles or fragments, are so called, to distinguish them from those of a uniform crystaline texture, which are of chemical origin.

Metamorphic Rocks. Stratified division of primary rocks, such as gneiss, mica slate, hornblende slate, quartz rock, &c.,

Digitized by Google

and which may probably be regarded as altered sedimentary rocks.

Metalliferous. Containing metals or metallic ores.

Mica. A simple mineral, having a shining silvery surface, and capable of being split into very thin elastic leaves or scales. The brilliant scales in granite and gneiss are mica.

Micaceous. In part composed of scales of mica.

Mica Slate. One of the stratified rocks belonging to the primary class. It is generally fissile, and is characterized by being composed of mica and quartz, of which the former either predominates, or is disposed in layers, so that its flat surfaces give it the appearance of predominating.

Miocene. One of the deposits of the tertiary epoch. It is more recent than the *eocene*, and older than the pliocene.

Mollusca. Molluscous animals. "Animals such as shell fish, which, being devoid of bones, have soft bodies."

Mountain Limestone. "A series of limestone strata, of which the geological position is immediately below the coal measures, and with which they also sometimes alternate."

Muriate of Soda. Common salt.

Naptha. A fluid, volatile, inflammable mineral, which is common in volcanic districts, and in the vicinity of the salt springs of the United States.

Native Metals. Those portions of metals found in nature in a metallic, or uncombined state, are called native.

New Red Sandstone. "A series of sandy and argillaceous, and often calcareous strata, the prevailing color of which is brick-red, but containing portions which are greenish grey. These occur often in spots and stripes, so that the series has sometimes been called the variegated sandstone. The European, so called, lies in a geological position immediately above the coal measures."

Nodule. A rounded, irregular shaped lump or mass.

Ochre. See *bog iron.*

Old Red Sandstone. "A stratified rock, belonging to the carboniferous group of Europe."

Oolite, oolitic. "A limestone, so named, because it is composed of rounded particles, like the roe or eggs of fish. The name is also applied to a large group of strata, characterized by peculiar fossils."

Organic Remains. See *Fossils.*

Orthoceratite. The remains of an extinct genus of molluscous animals, called Cephalopoda. The orthoceratites are long, straight, chambered shells.

Out-crop. See *Crop out.*

Out-liers. Hills or ranges of rock strata, occurring at some distance from the general mass of the formations to which they

Digitized by Google

belong. Many of these have been caused by denudation, having removed parts of the strata which once connected with outliers with the main mass of the formation.

Oxyde. A combination of oxygen with another body. The term is usually limited to such combinations as do not present active acid or alkaline properties.

Palaeontology. A science which treats of fossil remains.

Peat. A product resulting from the accumulation of vegetable substances, found in marshy places, in a partially decomposed and sometimes compact state. Peat may be *fibrous, ligneous, &c.*

Pisolite. A calcareous mineral, composed of rounded concretions like peas.

Pliocene. The upper, or more recent tertiary strata. This group of strata is divided into the older and newer pliocene rocks.

Petroleum. A liquid mineral pitch. It is common in the region of salt springs in the United States.

Porphyry. A term applied to every species of unstratified rock, in which detached crystals of feldspar are diffused through a compact base or other mineral composition.

Productus. An extinct genus of fossil bivalve sheels.

Plastic Clay. One of the beds of the eocene period. The plastic clay formation is mostly composed of sands with associated beds of clay.

Primary rocks. Those rocks which lie below all the stratified rocks and exhibit no marks of sedimentary origin. They contain no fossils, and are the oldest rocks known. Granite, hornblende, quartz and some slates belong to this division.

Pudding Stone. See *Conglomerate.*

Pyrites. A mineral, composed of sulphur and iron. It is usually of a brass yellow, brilliant, often crystalized, and frequently mistaken for gold.

Quartz. A simple mineral, composed of silex. Rock crystal is an example of this mineral.

Rock. All mineral beds, whether of sand, clay or firmly aggregated masses, are called rocks.

Sandstone. A rock composed of aggregated grains of sand.

Schist. Slate.

Seams. "Thin layers which separate strata of greater magnitude."

Secondary Strata. "An extensive series of the stratified rocks, which compose the crust of the globe, with certain characters in common, which distinguish them from another series below them, called primary, and another above them, called tertiary.

Sedimentary rocks. All those which have been formed by

Digitized by Google

their materials having been thrown down from a state of suspension or solution in water.

Selenite. Crystalized gypsum.

Septaria. Flattened balls of stone, which have been more or less cracked in different directions, and cemented together by mineral matter which fills the fissures.

Serpentine. A rock composed principally of hydrated silicate of magnesia. It is generally an unstratified rock.

Shale. An indurated clay, which is very fissile.

Shell Marl—Fresh Water Shell Marl. A deposit of fresh water shells, which have disintegrated into a gray or white pulverulent mass.

Shingle. The loose water-worn gravel and pubbles on shores and coast.

Silex. The name of one of the pure earths which is the base of flint quartz, and most sands and sandstones.

Silicious. Containing silex.

Silt. "The more comminuted sand, clay and earth, which is transported by running water.

Simple Minerals—Are composed of a single mineral substance. Rocks are generally aggregates of several simple minerals cemented together.

Slate. A rock dividing into thin layers.

Stalactite. Concreted carbonate of lime, hanging from the roofs of caves, and like icicles in form.

Stalagmites. Crusts and irregular shaped masses of concreted carbonate of lime, formed on the floors of caves, by deposits from the dripping of water.

Stratification. An arrangement of rocks in strata.

Strata. Layers of rock parallel to each other.

Stratum. A layer of rocks; one of the strata.

Strike. The direction in which the edges of strata crop out. It is synonymous with *line of bearing.*

Syenite and *Sienite.* A granitic rock, in which hornblende rĕplaces the mica.

Synclinal line and Synclinal axis. When the strata dip downward, in opposite directions, like the sides of a gutter.

Talus. In geology, a sloping heap of broken rocks and stones at the foot of many cliffs.

Tertiary strata. "A series of sedimentary rocks, with characters which distinguish them from two other great series of strata—the secondary and primary—which lie beneath them.

Testacea. "Molluscous animals, having a shelly covering."

Tepid. Warm.

Thermal. Hot.

Thin out. Strata which diminish in thickness until they disappear, are said to *thin out.*

Digitized by Google

Topography. The description or delineation of the varieties of surface, and whatever else relates to the general exterior character of a country.

Transition Rocks. A series of rocks which lie below the secondary and next above the primary, and are so called because they seem to have been formed at a period when the earth was passing from an uninhabited to a habitable condition. They contain numbers of characteristic fossils.

Trap—Trappean Rocks. Ancient volcanic rocks, composed of feldspar, hornblende and augite. Basalt, greenstone, amygdaloid and dolomite, are trap rocks.

Travertin. "A concretionary limestone, hard and semi-crystaline, deposited from the water of springs."

Tufa Calcareous. "A porous rock, deposited by calcareous waters on exposure to air, and usually containing portions of plants and other organic substances incrusted with carbonate of lime.

Tufaceous. A texture of rock like that of tuff.

Tuff or *tufa.* "An Italian name for a volcanic rock of an earthy texture."

Unconformable. See *conformable.*

Veins. Cracks and fissures in rocks filled with stony or metallic matter. Most of the ores are obtained from metallic veins.

Veinstone. That mineral matter with which the ores or metallic contents of a vein are associated.

Zoophites. Coral spunges and other aquatic animals allied to them.

[No. 12.]

Report of the commissioners appointed by the act to provide for a settlement with the Ypsilanti and Tecumseh railroad company.

To the Senate and House of Representatives:

The undersigned commissioners, appointed by the act approved April 1, 1840, entitled "An act to provide for a settlement with the Ypsilanti and Tecumseh railroad company," beg leave most respectfully to represent to your honorable body, that they have held frequent meetings, and had several interviews with the officers of said company; that such statements have been obtained from the auditor general as show the times when, together with the amounts heretofore paid by the state on ac-

Digitized by Google

count of the loan of $100,000 made to said company, under the act approved April 6, 1838.

The commissioners are persuaded that this company entered into contracts for the construction of the road, with full reliance upon the pledged faith of the state for the payment of the money loaned them, agreeably to the provisions and conditions of said last act mentioned.

The undersigned are of opinion, that the company complied with the conditions required by said act, in perfecting their securities for the repayment of said loan, and that the said company had every reason to expect payment thereof, on the part of the state.

Unexpected circumstances, however, and such as could not have been anticipated either by the state or the company, prevented full payment, and greatly delayed even that which was paid by the state.

It is therefore certain, that whatever may have been the misfortunes or faults of the company, the state has not fulfilled, on her part, the conditions stipulated by the act making said loan.

The company appear to have expended between forty and fifty thousand dollars for materials, and on the construction of said road, have incurred heavy liabilities to contractors and for right of way, on said road, which they are not able to meet. The company will be utterly unable to complete said road, unless largely aided.

It is the deliberate opinion, therefore, of the commissioners, that the state is justly and equitably liable for damages to the company, and still, that such damages, if paid, would not benefit said company, inasmuch as this would not enable them to finish the road without further aid. Thus, some forty to fifty thousand dollars expended upon said road, will be entirely lost, should the completion thereof be delayed for any length of time. And further, the injuries sustained by those through whose lands the road passes, would not be materially lessened.

From the limitation of the powers given to the commissioners by the act appointing them, they have met an insuperable difficulty in making a final adjustment with said company.

There are, moreover, equitable considerations to which this company is entitled, which can only be reached by most ample powers vested in commissioners, or by the legislature itself.

The undersigned commissioners would, therefore, most respectfully recommend, in view of all the circumstances, that the Ypsilanti and Tecumseh railroad be added to the other works of internal improvement now undertaken by the state; and that such appropriations be made as may secure the com-

Digitized by Google

pletion of said road, or at least may secure the timber, embankments, culverts, bridges, &c., from further decay and damage.

In proportion to the amount now necessary to complete said road, and unless this be done, the money already expended must be a total loss, the undersigned are of opinion the road would be important, and not unproductive in its revenue.

All which is most respectfully submitted.

J. KEARSLEY,
LEVI COOK,
JOHN PALMER.

Detroit, January 25, 1841.

[No. 13.]

Report of the secretary of state in relation to the poor, in the several counties, for 1840.

SECRETARY OF STATE'S OFFICE,
Detroit, April 7, 1840.

To the Senate and House of Representatives:

I have the honor, herewith, to present to the legislature, an abstract of the returns and reports of the superintendents of the poor, for the last year. This abstract is, by the fifty-sixth section of chapter three, title nine, part first of the revised statutes, required to be laid before the legislature during the first month of its session. But owing to the fact that but few of the superintendents had then made their returns, I deemed it advisable to delay it until another effort was made to obtain more complete returns. Accordingly on the 21st of January last, I prepared a form of the reports required by law, similar to those which had already been furnished, and addressed them, in the form of a circular, to the superintendents in the several counties who were delinquent; but I regret to say, that reports from only twenty-three counties, out of thirty-one, have as yet been received. Eight counties, to wit: Mackinac, Chippewa, St. Clair, Livingston, Eaton, Ingham, St. Joseph and Shiawassee, are delinquent; of these, four were delinquent last year, to wit: Eaton, Ingham, Mackinac and St. Clair. A reluctance to direct prosecutions for recovery of the forfeitures for failure to make the reports according to law, induced me to press with urgency the necessity and duty of a speedy compliance, which was accordingly done in my circular of January last. The neglect to comply with the law, after reiterated notice, and so long delay, would seem to leave but one alternative

Digitized by Google

to this department. I have therefore, given notice to the prosecuting attorneys in the delinquent counties, to the end that they may prosecute for the forfeitures, according to law.

I have the honor to be, sir,
Your obedient servant,
THOMAS ROWLAND,
Secretary of State.

Digitized by Google

Value of labor performed by poor.	made so by intemperance in themselves or others.	Number of poor houses.	Number of acres of land attached to poor house.	Estimated value of poor house establishment.	Remarks.
	2				
		1	120	$1,500 00	No chargeable poor.
	1	1	160	2,000 00	
$115 00	19	2	200	4,750 15	
	2		160	500 00	
75 00		2	80	2,000 00	
	75	1	100	3,000 00	
100 00	4	1	134	3,314 34	
75 00	25	1	80	2,400 06	
					No chargeable poor.
122 00	52	2	128	7,173 20	
166 33	100	2	280	5,500 00	

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

3 2044 021 676 507





Digitized by Google